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Published for the Author by G. & W. Nicol & Co. Pall Mall.

J. Pye sculp.

A  
NARRATIVE  
OF A  
*Voyage to*  
Surinam



LONDON, PRINTED by W. BULMER & CO

and Sold by Messrs G. & W. Nicol, Booksellers to his Majesty,  
Pall Mall.

1810



A  
NARRATIVE  
OF  
A VOYAGE TO SURINAM;  
OF A  
RESIDENCE THERE DURING 1805, 1806, AND 1807;  
AND OF  
THE AUTHOR'S RETURN TO EUROPE BY THE WAY OF  
NORTH AMERICA.

---

BY  
BARON ALBERT VON SACK,  
CHAMBERLAIN TO HIS PRUSSIAN MAJESTY.

LONDON:

PRINTED FOR G. AND W. NICOL, BOOKSELLERS TO HIS MAJESTY,  
PALL-MALL,

BY W. BULMER AND CO. CLEVELAND-ROW, ST. JAMES'S.

1810.



## P R E F A C E.

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**T**HE great difficulty with which a distant correspondence is carried on during war, made the Author reserve duplicates of all his Letters, that in case of any accidents happening to the originals, he might have the pleasure of delivering the copies to his friends on his return to Europe.

But on his arrival at Lisbon, the events which then took place in the Peninsula, prevented his proceeding to Germany by land.

This difficulty was not removed after he came to England; the interruption of its commercial relations with the Continent presented insuperable obstacles in the way of his intended voyage to his native country.

During a severe indisposition, and to employ his leisure hours in improving himself in the English language, he began to translate the following Letters from the German, in which they were originally written. His manuscript having been read by some esteemed friends, their favourable judgment induced him to have the whole revised, and cleared of the most striking inaccuracies of language, to which a foreigner is naturally liable.

That part of the work in which he gives his opinion frankly on the situation of the Colonies, with regard to the present and future supply of negroes for their cultivation, may seem to require a particular explanation. In describing the settlements where he resided, it was natural, and indeed unavoidable, that some reflections would occur upon a subject which is of so much importance to the Colonies, and which has occasioned so much speculation in Europe. The Author is aware how general a desire has been manifested to new-model the laws of the Colonies; and it appeared to him that no good effect could be expected from an alteration

formed on mere theoretical principles, and without consulting those who, from their situation and employments, were best acquainted with the tempers, disposition, and prevailing passions of the present generation of the negroes. Benevolence, operating at a great distance from the scene of observation, naturally prompts the measures most congenial to its feelings ; and to enforce their immediate adoption, either represents evils which do not exist, or are much exaggerated, and suggests schemes of improvement, which the present condition of the Colonies render difficult for a speedy, and at the same time, beneficial execution. In declaring his sentiments on these matters when writing a series of familiar letters, which were intended only for the perusal of his most intimate friends, residing in the interior of Europe, the Author was actuated by no other motives than an impartial opinion : he wrote as observation directed ; and of course wished to communicate his ideas on an important subject to those who might have read and heard much upon it, but without having had any knowledge of it from men who were personally acquainted with the Colonies. How his remarks will be received by the Public he cannot well conjecture ; but since the tide of opinion has entirely, as yet, gone in a quite different channel, some opposition may justly be expected. The personal effects of this, as far as relates to debates in conversation, might easily have been avoided, by the publication of the work without a name ; but he has not adopted this method, from a consideration of the impropriety of giving an account of a distant country on an anonymous authority.

The abolition of the Slave Trade has been determined upon by the Parliament of Great Britain : if it should hereafter be found, on a fair trial, that the Africans themselves do not reap such advantages from it as were at first expected, and if at the same time experience should shew that the Colonies are not yet come to such a state as to do without new recruits of labourers, perhaps the same legislature may be willing to institute some other regulations for the colonial supply and benefit : should that be the case, the Author has suggested a few ideas towards a plan for obtaining, whilst the necessity for them may exist, a number of negroes from Africa, without exposing them to the cruel treatment which disgraced the traffic when it was legally allowed. And here it deserves consideration, that should the supply from Africa continue to be entirely prohibited, a

contraband-trade will probably be carried on, in which the negroes no doubt will be greater sufferers than before the abolition took place, and certainly more so than if some proper restraints and modifications are adopted for its regulation.

The Author has omitted giving an account of the prevailing diseases at Surinam, as a mere enumeration of those complaints must be uninteresting to the reader, if unaccompanied by scientific observations and descriptions, for which the Author professes his incapacity.

The principal object intended in the publication of these Letters is to shew, by facts, that the climate of Surinam is not so unhealthy as it has been generally thought and represented in Europe, and that the mortality which prevails so much among new-comers, is chiefly to be attributed to their own imprudent manner of living. He has himself known many of those who might have prolonged their days, and enjoyed good health, if they had regulated their mode of life with a due regard to the climate. On this important subject some observations are here offered for the use of those who visit the Tropics; and if this part of his Work should prove beneficial to any, the Author will think himself sufficiently rewarded.

The Author has corrected, as much as he was able to do, some errors given in the preceding accounts of Surinam; and he will be very thankful to those who will do the same with his Work.

He apologizes for having trespassed so much upon the patience of the reader; and he will here conclude with saying, that as it is his design to transmit copies of this Work to Surinam, the West Indies, and the United States, the remarks with which he may be favoured, if found sufficiently important and interesting, shall be given to the public.



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## ERRATA.

Page	Line
32	9 <i>after</i> and the, <i>read</i> principal.
54	3 <i>for</i> worse, <i>read</i> less.
57	28 <i>for</i> Otaheite, <i>read</i> Island of Timor.
59	7 of note, <i>for</i> root, <i>read</i> stem.
60	4 <i>for</i> right, <i>read</i> left.
68	14 <i>for</i> to return, <i>read</i> reside in Europe.
82	6 <i>after</i> canes, <i>read</i> &c.
101	10 <i>for</i> by hooks, <i>read</i> by a hoe.
130	14 <i>after</i> water, <i>read</i> sugar.
184	13 <i>for</i> a mile, <i>read</i> three quarters of a mile.
233	14 <i>for</i> about, <i>read</i> more than.
239	27 <i>for</i> no, <i>read</i> to.

*Note*, whenever in the Appendix is quoted the 17th Letter, *read* the 16th.

## EXPLANATION OF THE PLATES.

### THE FRONTISPIECE

represents a Tropic-bird and a Dolphin chasing a Flying-fish, which is distinguished from the common species, by having two lateral fins, in form of wings ; it was caught on board the Jason, and is in the possession of the Author. The species is called by Dr. Block, *Exocetus exiliens*.

### THE VIGNETTE IN THE TITLE PAGE

represents a Barge, such as is used for travelling at Surinam. On the roof is seated a Female Negro-Servant, and under a Banana Tree is standing an Indian family of the Arrawoukee nation. The Men frequently hang over their shoulders a piece of calico when they come to Paramaribo ; but the cap, which is in general made of the long feathers of the Macaw-bird, is only worn at particular festivals ; the Female Indian is in her usual dress. In the distance are Coffee Trees and Sugar-canes. The foreground is made up of a branch of the Coffee Tree, and of the Cotton Bush, together with the Anana or Pine Apple, and the Water-melon.

The Sketch of Surinam.        -   -   -   -   -   -        to face page 1

Plate III. represents a proposed easy method for the Negroes to sow cotton,        101

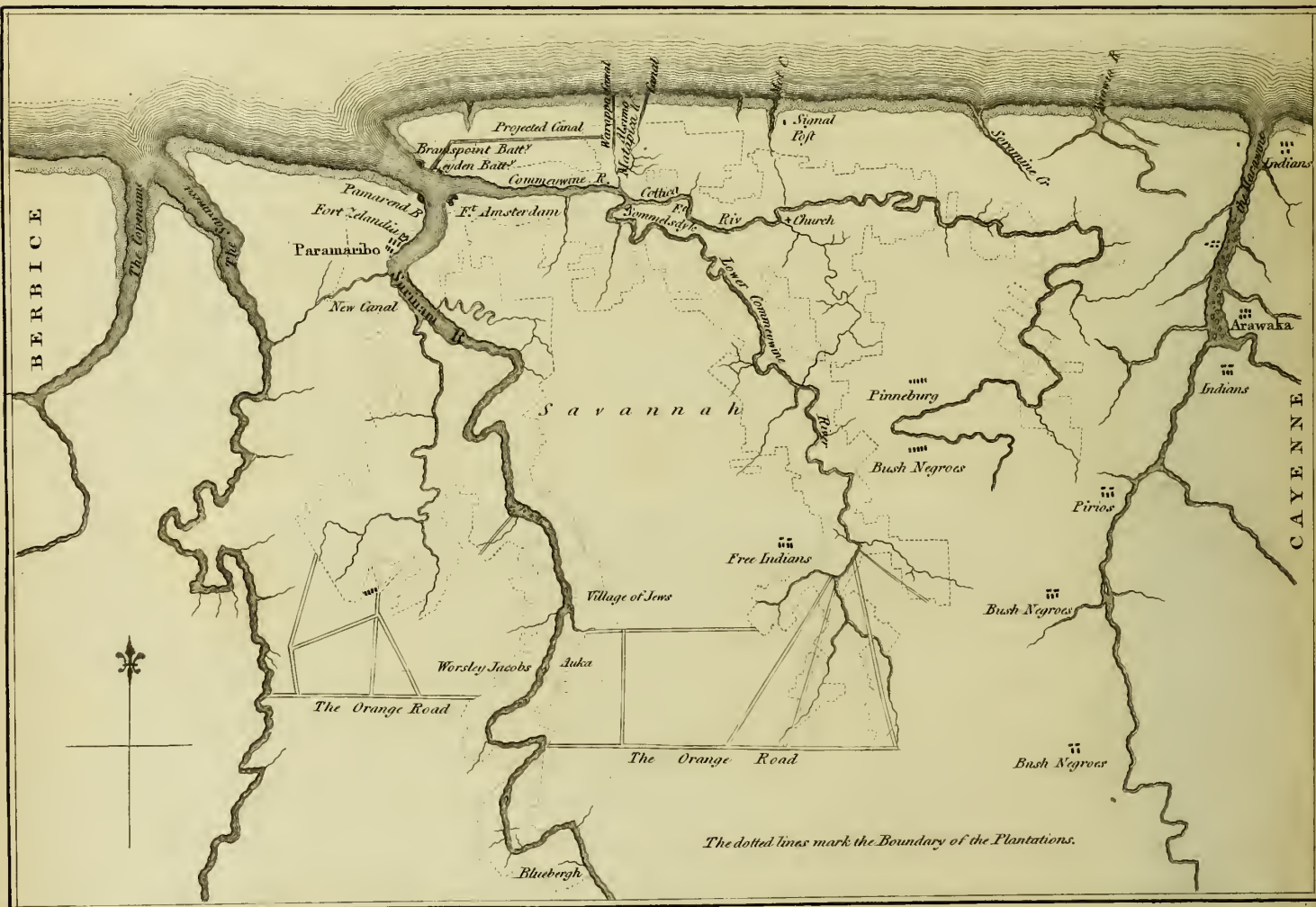
THE HISTORY OF THE

REIGN OF CHARLES THE FIRST  
BY JOHN BURNET  
OF THE UNIVERSITY OF OXFORD  
IN TWO VOLUMES  
THE SECOND

IN TWO VOLUMES  
THE SECOND  
BY JOHN BURNET  
OF THE UNIVERSITY OF OXFORD  
IN TWO VOLUMES  
THE SECOND



A SKETCH OF SURINAM,  
*principally taken from the Map of M. A. de L'aurier.*



*Pub<sup>d</sup> Jan<sup>y</sup> 25. 1810 by G & W. Nicol Pall Mall.*

## NARRATIVE, &c.

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### LETTER I.

*The Author's Reason for taking a Voyage to the Tropics, and particularly to Surinam.*

MY DEAR SIR,

*Funchal, Madeira, December 2, 1804.*

YOUR very obliging letter, which I received by the favour of Mr. P. gave me the greatest satisfaction, as it contained the pleasing intelligence of your continuing to improve in your health, which I hope your journey to the sea coast will fully restore.

Mr. P. is already introduced to Mr. W. Gordon and Mr. J. Gordon, who are not only eminent in commercial business, but also merit particular regard for their excellent principles, and who soon will make him acquainted with the best societies in this hospitable island: however, I shall say nothing of Madeira, as you will undoubtedly have a complete account of this place from Mr. P. and therefore I proceed to answer your kind letter.

You declare that you are surprised to hear I intend making a voyage to Surinam; and you are of opinion, if I think to increase my fortune there, it is not in the present crisis of affairs a proper time to expect much success. I agree perfectly with you; yet, in going to Surinam, I hope to gain what is preferable to the greatest fortune, nay to life itself—the recovery of my health.

In reality, this voyage to the Tropics is undertaken after the consultation of very eminent physicians, who have advised me, if the winter season in Madeira should not agree so well with me as the summer, to proceed to some country nearer to the Line. Although the climate is very pleasant for people in good health, yet the winds are often too keen for invalids; and as I have now staid in this island two years, and always in the winter suffered from the pulmonary complaint nearly as much as during my travels and residence in the South of Europe, I am resolved to pursue the medical recommendation, though it is certainly very unpleasant to be obliged to undertake such a distant voyage, in an indifferent state of health, during a war, which I had hoped would have been terminated by the mediation of the King of Prussia, who by his estimable private character is in the confidence of the other European powers.

In this voyage to the Tropics, the other additional inducements which determine me in the choice of going to Surinam, I intend to relate to you more fully on some future occasion, and therefore shall here only add, that during my stay in that country, I may attain, by the particular attention I am accustomed to pay, wherever I am, to the influence of the climate, and the necessary mode of living, some knowledge that may become useful to other newcomers, among whom I expect to have the pleasure of seeing many of my own countrymen, and even, perhaps, some of my most ancient acquaintances.

Although there can be no doubt that there are good medical men at Surinam, yet the presence of a friend can sometimes have a still better effect in persuading a stranger to avoid evils in an unguarded moment, particularly in such a climate, where, when once a distemper is caught, the most skilful physicians are often unable to stop its rapid progress, and prevent its becoming fatal.

At Madeira, the months of February and March are particularly

changeable in the weather, and subject to most piercing winds, it will therefore be fortunate for me if I can leave this island before that time ; and I flatter myself that, after this explanation, you will no longer disapprove of my design in residing for some time at Surinam. Farewell.

## LETTER II.

*Departure from Madeira.—At Sea.—The pleasure of a Passage in the Tropics—On the Dolphin of the Ancients.—On the Shark.—The Thrasher.—The Lightning of the Sea Water.—The Appearance of the Coast of Guyana.—Two Privateers in sight.—The Jason attacked.—Captured, and carried into Martinico.*

MY DEAR SIR,

Funchal, Jan. 23, 1805.

I HAVE taken my place for the passage to Surinam in the Jason, Captain Martin ; she is a ship of three hundred tons burthen, and her cargo consists of Madeira wine. There is no other passenger than myself, and the Captain has called on me to-day requesting that I would sleep on board his ship to-night, as he expects to sail early to-morrow morning ; thus then I am about to write my last adieu to you from this island ; but as the departure in sea voyages is always very uncertain, I intend leaving an open letter for you at one of the gentlemen's houses here, with a request that he will add in a post-script the time of our sailing, and then forward the letter to you by the first opportunity ; but should any accident prevent it, I hope the one which I am actually writing will give you at once my proceedings from the time of leaving this island till my arrival in the Tropics.

Agreeably to your desire I will send you my journal, which will only consist of a few notes, as the keeping a minute account of a voyage can only be interesting to seafaring persons. There is indeed little that can be said to merit attention from others, where, for so many weeks, the passenger is confined in an incessant circle of the

fluid : and for the purpose of trying experiments at sea, there are no proper instruments to be obtained at Madeira. If you therefore find this abridgment little interesting, you will have reason to thank me for saving you the time and trouble of reading the whole.

Jan. 24th.—The Captain has been disappointed in his intention of sailing to-day. A Spanish ship appeared in sight off the island, on which account the Governor would not allow the *Jason*, which is an armed vessel, to leave the road until the Spaniard was quite out of her reach. This circumstance is not pleasant to me, as all my things have been sent on board. However, I must say that A. de S. F. is in the right ; he discharges his public trust as Governor, with as much justice and dignity, as he is respectable in his private life, and he must be considered as a great credit to the Portuguese nation.

Jan. 25th. At sea.—We left Madeira this morning without any more delay, when the Captain had received permission to sail, with the wind at N. W. and the weather fair. The island, with its gradually rising mountains, presented a most pleasing prospect. In the town of Funchal the sun was shining brightly on the antique castle, whilst the whole picture was finely shaded by some clouds hovering over the magnificent church on the top of the mountain.

Jan. 26th.—The wind coming more to the northward, and blowing fresh all night, we could see no more of Madeira this morning. A brig called the *Somerset* keeps us company for mutual defence. The two captains have just been consulting together to keep further off from the Canary Islands, for fear of falling in with the privateers which cruise in that quarter, and therefore I have no hope of seeing the majestic Peak of Teneriffe.

Feb. 1st.—Since our passing the twentieth degree of North latitude, we enjoy the benefit of the constant trade wind. The sails require no labour in trimming, and the mariners employ their time in the different occupations of mechanics ; meantime, by the arrange-

ments that are now made with our fresh provisions and our live stock, the deck has the appearance of a country market, with which cheerful sight even the captain and the crew seem much pleased.

Feb. 5th.—Several dolphins are following our ship ; their brilliant colours of green, gold, and purple, shine more bright when set off by the ultramarine colour with which this part of the sea is tintured. That species of the porpoise, which was called by the ancients a dolphin, is not of such a splendid appearance ; and what procured it this high reputation of being supposed willing and capable of saving the human species when a ship is foundering at sea, now only remains a matter of conjecture.

Perhaps a lover,—in those times,—seeing his fair companion trembling at his side in a distressing voyage, may have told her, that if any accident should happen to their ship, those dolphins which they saw swiftly sporting round them in the waves, and whose plaintive voice they had often heard,\* would compassionate their condition, and soon carry them to a happy shore,—the poets after this made use of the same fiction to save their heroes from the greatest perils at sea.

Feb. 9th.—You know by your own experience what pleasure is felt in reading Ancient History on the very spot where the actions related actually occurred,—not less pleasure is felt, in this tract of the ocean, in reading the Voyage of Columbus ; imagination pictures to itself all that happened to that bold adventurer in his very extraordinary expedition. But though Columbus most ably refuted the arguments of many learned men, who thought it impossible that his great plan for a voyage of discovery to that extent, could be executed, yet, when he and his companions arrived in the Tropics, they became very uneasy, by observing a phænomenon which is now our delight ; this is the trade-wind, which blows constantly from the east. The first adventurers who crossed

\* Several species of fishes in the Tropics are not destitute of a voice.

the Atlantic ocean, doubted whether they should ever find means to revisit their native country, until they discovered by experience, that in shaping a course on their return, first to a certain degree of north latitude, they had no longer any difficulty in sailing to Europe.

Feb. 14th.—A shark has passed our ship, but without paying attention to the bait which was prepared for him. I took several large hooks with chains from Madeira, wishing to catch some of this fish, particularly the white shark, of which it is said (as I have noted in my memorandum book) “ that the young brood, when in danger, rush down the throat, and take shelter in the belly of the old one ;” and it is added, as a remark of Mr. Pennant, “ that this is no more incredible, than that the young of the opossum should find such an asylum in the ventral pouch of its parent.” But with all respect for the Natural History of Mr. Pennant, there seems to be a great difference between an outward pouch, formed like another bag, where the quadruped carries its young in safety, and that interior pouch, which is supposed some of the species of sharks possess ; for unless the organization of the shark is very extraordinary, this place of retreat must be very inconvenient for the young ones, as likewise must be the passage leading to it, through the throat of this always voracious animal. Until, therefore, the fact is better confirmed by a careful dissection, I cannot help looking upon the jaws of this most ravenous fish, as upon the celebrated cave of the lion, where so many animals were seen to go in, but none ever to return

Feb. 15th.—In the afternoon, as the Captain and I were standing on the deck we perceived several lofty water-spouts rising from the sea, and after this a large fish ascended out of the water, to appearance about mid-way, then threw himself with the greatest strength down again ; upon which the Captain called out, There is a thrasher, a thrasher ! and, continued he, in the course of twenty years since

I have been at sea, this is only the second time I have seen the thrasher fighting with a whale.

The thrasher belongs to the species of sharks, but I can give no further description of this fish; for when first we perceived him, it was at a considerable distance, and the animal continued his course very rapidly, still fighting all the time that we were able to observe him. You will however naturally suppose that this must be a fish of the first rate in size, as he is able to fight with the whale. We had only a momentary opportunity of perceiving the latter, when he raised his head out of the water to breathe the air, and he spouted frequently.

Feb. 16th.—We are now in the fifth degree of north latitude, being obliged to sail so near the Line, to avoid the strong currents from carrying us too far out of our course, and hindering us from making the river Surinam. Although rapidly approaching the Line, we feel no particular inconvenience from the heat; a large awning shelters us from the powerful rays of the sun, and the Tropical breeze makes the air extremely pleasant; there is so little motion in the ship, that we have been able to fill a bumper in memory of our absent friends, without spilling the least drop. This sailing is like a pleasure party on a river; and if the sea were every where so smooth and delightful as it generally is in this part of the world, an agreeable companion might sooner be engaged to go upon a long voyage.

Feb. 17th.—The sea becomes more animated, incredibly large flocks of flying fish are passing us, and though they are pursued by many different enemies, kind nature has provided them the means of escaping from them all. Whilst they are attacked by the other fishes they use their winged-fins to get into the air; but as soon as they expect to be attacked by a bird, they return to the deep again; and their great number shews how successful they must be in general in effecting their escape. Their increase is likewise

extremely great, and in this respect they are like the herring, to which also they bear a resemblance in shape.

Various birds are likewise passing over our heads, of which the tropical bird is, as you must know, the most remarkable, being distinguished by two very long feathers in the tail. I remember to have read in the account of some voyage, that this bird has but one long feather; but it is very likely that the bird, seen by the author of that observation, had lost one of its feathers; there are many different species of birds which have two feathers in the tail, longer than the rest of their plumage, but I remember no species distinguished with only one long feather.

We have observed since sailing in the Tropics, that the water appears more illuminated during the night: you know the different opinions of the naturalists respecting this phænomenon; some of them ascribe it to the fry of the fishes, and others to dead particles of animals, and vegetables; but this lightning is not merely apparent on the surface; for I remember when I was at Naples, and used to bathe in the sea every evening for my health, I found the water produce flashes of light, even close to the ground on which I trod; now what an infinite number of the fry of fishes would it require to produce such an effect? and it is less likely that so many putrified particles should be dissolved in the sea without producing any bad consequences. It seems, therefore, that the water itself is pregnant with an electric fluid, for when a bucket full of water was taken up, and some of it poured into a glass, it soon lost the effect of this light entirely. Now, if it was the effect of the fry of the fishes, or like the glow-worm and some other insects, it is not probable that they should die in so short a time, much less that in this instance, the putrified bodies should immediately lose the shining quality, when we see it continue so long in rotten wood, &c.; but here the electric fluid may sooner vanish with the evaporation of the water, and this fluid will attach itself

to all kinds of different bodies: I am sorry, however, that there is no machine on board the ship, with which the sea water can be got with much accuracy from a great depth, to see how far the electric fluid does penetrate. Since I cannot know whether you have met with the account of Mr. Hayron, respecting an electrical appearance in some particular species of flowers, I shall without any further apology insert what I have read in a magazine, a translation of *Obser. Physique*, par N. Rosier, vol. xxxiii. p. 3. “ In Sweden, a particular phænomenon has been observed in different species of flowers, which has been first remarked by Mr. Hayron, Lecturer of Natural History; one evening he saw a faint flash of lightning dashing from a marigold flower, and to convince himself that it was not an error of his eye, he placed at his side a person who was to give a signal at the moment when he perceived the light, and both saw the flashes at the same time: in some of the flowers the light was more visible than in others, particularly, 1, in the marigold *Galindula officinalis*; 2, *Tropaeolum major*; 3, *Lylium bulbiferum*; 4, *Tagetes patula et erecta*; sometimes it was likewise observed in the *Helianthus anonis*; yellow or fire colour seems to be necessary to produce this light, as it was never perceived in flowers of other colours. To discover whether there might be perhaps a little insect, or a phosphorical worm that produced this effect, the flowers were carefully examined, even with a microscope, but nothing of this was to be found.” It is added in the magazine, “ that from the rapidity of the flashes and other circumstances (which are not mentioned) it may be conjectured that there is something of electricity in this phænomenon.” To me it seems the flower might be a conductor, which drew from the air the electrical fluid, but as it is mentioned that only flowers of a certain colour had this light, more experiments are required; it is a pity that there is no mention whether flowers of the same species, but different in colour, were observed to have this quality, and that the flowers which

certainly accept the polite offer of the Captain of the privateer, and remain with him, they had carried a part of my luggage on board of his ship; but this, he said, was only a mistake, and I should have it back again as soon as we landed: he added, it was very fortunate that it did not come to boarding of the Jason, as he could not tell what might have happened in that case, there being some very bad people amongst the crews of the two privateers, which were composed of different nations and colours.

The names of the two privateers by which we were taken are l'Aigle (the Eagle) and le Flibustier (the Freebooter), one of twenty, the other of eighteen guns, and both crowded with men; they appeared to be very fine ships, and remarkably fast sailers. The two captains, with the other officers, consulted first where it was best to carry the prizes; they thought there would be less danger of being retaken in the passage to Cayenne, but as they expected to get a higher price for the negroes at Guadaloupe, it was determined upon to proceed to that place, and accordingly the course was altered for the West India islands. Thus I saw the coast of Guiana disappear before me like a magic exhibition, which had only flattered me for a moment with the delusive imagination of a happy arrival; instead of which I am now left without even a hope, of making a speedy return to the coast of Surinam.

In all trading vessels which venture to sail without a convoy, the tonnage decides in general how many guns they are to carry; but if there is not a proportionate number of men for manœuvring the guns, and likewise for small arms, they must soon fall a prey when attacked by a privateer; and as these cruisers always carry a great number of men, they are able to make a better use of the guns of the captured ship; which by this means injures the commerce of the very nation it was at first intended to protect; therefore those vessels which have not a proper complement of men, but are fast sailers, might make their passage as well without guns,

and those who are not fast sailers, and cannot obtain their whole crew, should be ordered to sail under convoy. The Jason, since she was taken, has got more than a sufficient number of men to manage her guns, as well as for the manœuvring the ship, besides two men for the watch at the mast head ; and some Mulattoes, remarkable for their sharp sight, are, as soon as it grows dark, ordered to patrol the deck, to see whether they can discover any vessel. There are only two officers on board the Jason ; the prize-master, and what they denominate *the second*, which is the mate ; but the crew seem not to be under much discipline ; they often gather in groups on the quarter deck, and entertain themselves with stories suitable to their profession. The prize-master seeing me often uneasy in my present situation, said to me, “ Oh Sir, I never had the least intention to go a privateering myself, at first ; for making a decent fortune at Guadaloupe, and wishing to return to my native country, I exchanged my money for colonial goods, in expectation of selling them well in Europe ; but before I arrived there, war had commenced without any previous declaration having been made, as it should have been, wherefore the ship in which I was with my goods was taken, and I lost by this all my property. Now I have engaged myself in a privateer in hopes to make another fortune, and serve my country at the same time by fighting against her enemy.” In answer to this, I replied, that the unfortunate manner in which the war had commenced without a declaration must have ruined many individuals, but I thought the line in which he had now chosen to re-establish his fortune was a very hazardous one, and most uncertain, as all depended merely on chance, and very much resembled gaming, where, in general more is lost than gained ;\* but that if any person wished to serve his country in time of war, against the

\* The owner of one of these privateers lived in Guadaloupe, and the prize-master told me that he had made a very large fortune in commerce, and was still encreasing it by fitting out cruisers ; but I have since learnt that he became a bankrupt by this very practice, and died of grief.

enemy, he might do it more properly, by entering into the army or navy, as privateers in general avoid coming to any action with armed ships; choosing to attack only defenceless vessels, where, by witnessing many distressing scenes, the persons so employed become hardened in time, and insensible to the misery of those who fall into their hands.

Feb. 23.—We saw a large ship N. E. in consequence of which the captains of the privateers made signals for the prizes to disperse, as they did themselves: this strange sail seemed to direct her course towards one of the privateers; but we soon lost sight of every vessel, and never fell in with them again.

Feb. 27.—We were quite close to a large island lying to the west, and hearing it was Barbadoes, I expressed some surprize that they should venture so near an enemy's country; but the prize-master replied, "Aye, we know pretty well where the cruizers are; we are in very little danger of falling in with them here."

Feb. 28.—About midnight heard several guns firing near our ship, and learnt in the morning that an armed schooner in chase of another vessel had passed very near the Jason, otherwise, as the prize-master observed, it was very likely we should have been engaged with this armed schooner.

Feb. 29.—Towards the evening appeared a large ship, but at a great distance: she seemed to make sail towards us; but in the course of half an hour another large ship came in sight, and the prize-master with the glass thought he could perceive they were making signals to each other, "Oh," said he, "we are lost, they are consulting how to catch us: the only chance we have of escaping them is entirely altering our course when it becomes quite dark." And this he did: however the next morning one of these ships was in sight again, making all sail towards us. As soon as she came to a proper distance she shewed French colours, and fired two shots at us. The prize-master had every thing prepared for what might

happen, either for action or surrender. He told me if he was only fortunate enough to carry away one of her masts, he might then stand a chance to escape. I replied, that as I was of a neutral nation, and differed from him in warlike sentiments, I should take my station at the head of the ship; but whilst I was going there, the prize-master called out, "Oh, I know her! it is *le Grand Decidé*,"\* hoist the French colours!" and his conjecture was right, for it was that very privateer, the captain of which told the prize-master he should have come up with the *Jason* last evening, but that he was prevented by an English frigate which chased him: his ship, however, made her escape by superior sailing; "Well," answered the prize-master, "this is the third time the enemy have been prevented attacking us by being engaged in pursuing other vessels; but," continued he, "Mon cher ami, you do well in sailing to the coast of Guiana; it is an excellent station for a privateer, not only in regard to the ships that are sailing for that country, but particularly for the rich Guineamen which are constantly making that coast." The captain said this was exactly his intention, and then wished us all a happy voyage.

March 1.—Martinico appeared N. W. and more to the north, Dominica. The prize-master finding the wind unfavourable for making Guadaloupe, thought it best to steer directly for Martinico. It was a very pleasant sight whilst we were passing through the channel which separates Martinico and Dominica; but the former island seems much better cultivated than the latter. In sailing along the coast of Martinico many people hailed us with their speaking trumpets, asking us from whence we came, and what cargo we had: when the prize-master replied he was from the coast of Guiana and had several narrow escapes of being taken, they called

\* *Le Grand Decidé* is well known for her extraordinary fast sailing, by which she has defied all attempts to take her. Report says since, she has foundered at sea, and all her crew perished.

out "*à la bonheur*." (how fortunate); but when they understood that this was a prize taken by a privateer, they called out, "*Oh le voleur*," (Oh the robber). As these two terms are somewhat similar in sound, the prize master wished he could take it as a mere play upon the words, but as the word *voleur* or robber was so very strongly repeated whenever he mentioned the word privateer, he could no longer mistake the sentiments of the inhabitants, and then began to lose his temper. "I know well," said he, "that the people at Martinico hate the privateers; none are fitted out here, notwithstanding there are so many from the other islands; and if it had not been for this cursed wind so contrary for Guadaloupe, I never would have desired to have touched here." And I on my part, for this very reason, wished the more to get soon acquainted with the inhabitants of Martinico.

It seems then not to be a mere romantic dream of mine, the hoping that in our time privateering will be abolished, for here are already the inhabitants of a considerable island who do not fit out any vessels of that description, and the reason assigned is, that they consider it as a downright robbery. These openly avowed sentiments are an appeal to all civilized governments to amend the code of war.

When we entered the bay of St. Pierre, the wind began to fail, the current run strong, and the *Jason* neither having a full cargo, nor answering well the helm, became adrift, and all the exertions of the officers and crew were in vain; this exasperated them, and they wished the ship had gone to the bottom before they saw her; however at last the breeze began to increase, and by the aid of a pilot we came to anchor very near the town.

St. Pierre makes a fine appearance in approaching it from the sea. The town is situated in a beautiful bay, and intermixed with many very dark shaded trees, which contrast most delightfully with the light coloured green of the sugar canes on the surrounding plantations;

and on landing, I was as much pleased with the sight of the interior of the place: the streets are regular and wide; in the middle runs a rapid stream, which refreshes the air very much; the houses are built of brick and free-stone, mostly two stories high, and though they are not remarkable for their architecture, are comfortable, and are properly accommodated to the climate. The shops seem to be well furnished with all sorts of European goods, which are, it is said, brought hither by neutral vessels; I hope, therefore, to find soon an opportunity of sending you this letter, or, I might almost say, this volume, that when you learn by the public papers of the Jason having been taken, this may inform you what is become of her passenger: adding, that for the present, I am lodged in a private house kept by a widow lady, who is so obliging as to take care that I shall enjoy much comfort after so long and unexpected a voyage. However, as this is the best season for travelling in the Tropics, I shall, as soon as I can find an opportunity, resume my voyage for Surinam. Farewell.

## LETTER III.

*A Description of the Environs of St. Pierre.—Principal Productions—Character and Manners of the Inhabitants.—Island much infested by Serpents.—A proposition to destroy them.—The Author's Illness and recovery.—Departure from the Island.—Passage to St. Lucia.—Sickly Situation of Morne Fortunée.—Departure from St. Lucia. Passage to Barbadoes.—Description of Bridge-town.—Happy meeting with Captain W.—A Tour to Speight's Town.—Visit to Mr. W. C.—A useful Cotton Mill.—An improvement of a Sugar Mill.—The first introduction of the Levant (white) Fig-tree into Barbadoes.—Scenery on the Road.—The Mode of manuring the Fields.—Happy situation of the Country in respect of Provisions.—On the Barbadoes Tar.—The Nourishment of the Negroes.—The apparent good Treatment of them in this Island.—Arrival of the English Squadron.—Departure from Barbadoes.*

MY DEAR SIR,

*Martinico, St. Pierre, March 6th.*

YOU are persuaded, by knowing my custom, that soon after my arrival at St. Pierre I visited the adjacent country, which had appeared so inviting to me when viewed from the sea; indeed the walks in the fields are very interesting, and as far as I am able to judge, most of the plantations appear in the highest cultivation, many of the country houses are very handsome, with an avenue of large shady trees. It is there in general the owners with their families pass the hours of recreation. These plantations have much the appearance of the estates in Europe, and the more so, because the inhabitants do not cultivate the ground merely to acquire a quick fortune, and then hasten to Europe again, leaving their

plantations to the care of others, by whom they are often neglected ; on the contrary, as most of the families reside constantly on their plantations, an improvement begun by the father is carefully continued afterwards by his children ; by which means a fruitful produce is still procured, even where the ground has begun to lessen in fertility. I have been assured that in many places of this island the fertile earth is not above two feet deep ; and the land requires to be manured every year ; but, then it yields an excellent crop. In the deep valleys fine sugar canes are produced, but on that part of the rising ground, where for so many centuries wild trees had deposited their leaves, and formed a considerable bed of garden earth, are those coffee plantations, the berries of which have been always so highly esteemed. The principal mountains are composed of a steel coloured granite, and I am informed they are so all over the island.

The people of Martinico seem to live very happily ; though I was informed by them, that they had suffered much in the revolutionary time of their mother-country, by the decree which was made in favour of the negroes. These men were not sufficiently enlightened to make a proper use of the bounty bestowed upon them, but turned their freedom into licentiousness : they first became disobedient, then insolent, and at last broke out into riotous disorder ; however, every thing is now quiet, and the principal wish of the inhabitants is for a general peace, in which sentiment I join them with all my heart. A gentleman, who is a native of my own country, has called on me to enquire about a near relation of his, and of whom I gave him some information ; this person has given me a more particular description of the inhabitants of Martinico, having resided there many years. On his voyage from Cayenne with an intention of returning to Europe, he touched at Martinico, and was so much pleased with the agreeable manners of the society here, that he resolved never to leave this island again. Politeness, which

is always highly esteemed, but not so often imitated, seems here not to be produced only by education, but to be the effect of a natural happy disposition, born with the people ; by shewing civility to others, they enjoy themselves a great deal of pleasure in society ; they are also very much attached to their families, and are kind to their negroes. These form the principal lines in the amiable disposition of the inhabitants of Martinico, but in regard to strangers, continued this gentleman, they are particularly attentive, and if you would choose to remain here longer, you will find that I have not exaggerated the description, which I have given of the manners of this island."

But many reasons induce me to hasten as much as possible the continuation of my voyage, particularly as my letters of credit are only for Surinam ; and you may think, as I had no expectation of taking this long course, I did not bring much cash with me ; all the opportunity I have had of observing the manners of the inhabitants, convinces me that my countryman has given a true description, and it depends only on myself to be directly introduced to many parties.

The length of my rural walks, and not yet being accustomed to the sudden approach of night where there is so little twilight, make it often dark before I can reach home ; I have therefore been cautioned to take particular care, as there are so many venomous snakes in this island, and I always walk in the middle of the roads, where on the light coloured ground they can be better perceived.

Martinico, and St. Lucia, are the only islands of the Great Antilles or Carribee Islands that are infested by these reptiles, and history relates, that the Indians gave the following explanation of the circumstance, " The original natives of those two islands used to attack the Indians of the coast of South America, and plunder their habitations : the people of the continent, by way of retaliation, caught many venomous snakes in baskets, and carried them over to the islands, where they turned them loose, not only as an act of

revenge upon the living, but to continue as a plague to posterity ; an idea truly savage ; but let this be as it may, the inhabitants of Martinico suffer very much by venomous serpents ; and though in many countries great rewards have been given by governments for killing wolves, and other ferocious animals, which destroy cattle, no such means have been adopted here to destroy reptiles, which are so dangerous to the human species. The serpents must multiply the more at Martinico, as this island does not possess the advantage of other countries, in having animals that prey upon them ; nor do the inhabitants go in search of them ; so that when the serpents appear it is quite unexpectedly, and by this means they have time to escape, nay, even after they have mortally wounded those who unguardedly have happened to come near them, they leave the unfortunate victim in too much agony and horror to think of pursuing them. In Italy the vipers undoubtedly would infest the country much more, if they were not fortunately prevented by those persons who make it their business to catch them, for the purpose of selling them to invalids of feeble constitutions, to make viper broth, or to apothecaries for many other medical uses. I have seen them brought alive in cages to market, and it is said that those viper catchers are extremely expert. Now certainly it would require less address and trouble to kill the reptile, and afterwards only be obliged to shew the head with its venomous fangs, in order to receive the stipulated reward. The negroes, and particularly those who are free, who are so well known to possess extraordinary talents in hunting, and in catching all sorts of wild animals, would gladly adopt this course of life, and prefer it to hard labour, when they were certain of being rewarded in proportion to their success ; and not only these, but even the negro slaves on the plantations would look out to get some money by it. This, or some other effectual method of destroying these reptiles must be of great importance in Martinico, as, from its insular situation, no new brood

could arrive there again ; but without going so far, only the diminution of these serpents would soon be happily felt, in particular by the people labouring in the fields, who are so much exposed to their destructive bite. The children also suffer very much by these noxious creatures, and there are many instances, when they are playing near the dwelling-houses in perfect health, of their being brought home to their parents in the most tormenting agonies of inevitable death.

These venomous serpents are consequently considered as the greatest plague that exists in this otherwise happy island. The introduction of the ichneumon in Martinico might be very useful, particularly the Egyptian kind, which is much stronger than the common African, or those brought from India. The ichneumon is classed by naturalists in the genus of the weasel ; and the Egyptian kind is said to be about seven inches long, and its tail of the same length, which is slightly tufted at the end ; for which reason, Linnæus has made it a separate species. The Egyptian ichneumon will, it is said, attack and conquer the most venomous serpents ; it is therefore highly esteemed by the inhabitants of Egypt, who keep it as the Europeans do the cat, which it surpasseth in strength, agility, and courage. Such a species of animal brought to Martinico, would not only clear the houses, where it would be domesticated, and the vicinity, from those reptiles ; but it might be used by the serpent hunters when in search of their places of retreat. I have seen in England an ichneumon, but it was of the smaller or common species, not larger than a ferret, and it was said to have been brought from the Cape of Good Hope.

On the second day of my arrival at Martinico I became much indisposed. My good landlady was greatly alarmed ; she and a gentleman who came to visit me, both thought my illness was owing to the tropical fruits I had eaten, and to which not being yet accustomed, my bowels became too much relaxed, and

advised me to take some astringent cordials ; but I thought it was most likely owing to the water I had drank, containing some particles which disagreed with me. My reason for this opinion was, because I felt myself unwell the very first day after drinking some of the water ; but the second day, by drinking a larger quantity, I directly after became very much indisposed, and attacked by an acrimonious humour in my stomach. I therefore ordered a contrary prescription to what had been proposed to me,\* and promising that if I did not become very soon restored, I would follow their better advice ; however, there was no necessity for keeping my promise, as in the course of two days I was as well as when I first landed here. But as I only intend to stay a few days longer in this island, I shall have no opportunity of investigating with more certainty what occasioned my disorder. I therefore only take the precaution, while I am here, to drink the water always mixed either with white syrup, or in lemonade ; yet, I continue still to eat the different fruits as before, without experiencing the least bad effect from them. It very likely happens to many new-comers in the Tropics, that the origin of their disorder is often mistaken, and therefore a wrong diet is proposed to them, and a contrary medicine prescribed, by which the mortality among strangers is so much increased.

The day after to-morrow a Swedish brig will sail to St. Christopher's, and she intends by the way, to touch at St. Lucia, from thence there are always vessels going to Barbadoes, and from that island to Surinam is the only course which is left me. I have therefore taken a passage in the Swede. When I visited the commandant of St. Pierre he politely wished me a more happy voyage than I had before, adding, that as he knew this brig would be crowded very much with passengers, he would write to the Swedish Consul, recommending me particularly to him, and requesting him to be so

\* Castor oil.

good as to speak with the captain, to procure me the best accommodation.

Two officers of the custom-house have likewise called upon me, and declared they wished that the luggage I had lost when the Jason was taken, had been brought to Martinico, in which case, I should certainly have had it all restored to me; adding, that if I gave them a specification of what I had lost, they would write to the custom-house officers at Guadaloupe, to try whether they could get them back, or if I would fix the price of the articles, it should be deducted from the sum gained by the privateer in selling the Jason. I gave them the specification, but without valuing my goods; and the prize-master of the Jason assured me, that he would do his utmost, as soon as he arrived at Guadaloupe, to find my things, and send them to me according to the direction which I gave him; but he added, that the crews of privateers, in the first moment when a ship is taken, will often plunder the passengers; and it is sometimes out of the power of any officer, even of the captain himself, to make them restore the property that has been taken. He was very sorry to say he had reason to suppose, that this might be the case at this time, there being so many bad subjects on board the privateer. I was satisfied with this declaration from him, thinking it best to put the loss, in my account, under the articles of unexpected expences, for which travellers should be particularly prepared.

On leaving Martinico, I will only add, that near St. Pierre a botanical garden has been recently formed, and by the arrangement made and the attention observed, promises to become a very valuable institution.

There are also two very considerable libraries in this town; while, it is said, in many of the other islands there is nothing of the kind. Indeed I should like to have remained longer in Martinico if I had come in some other way, and had been better provided than I am now,

St. Lucia. Morne Fortunée, March 10th.—On the eighth inst. in the afternoon, we sailed from Martinico; the prospect is very pleasant; Dominico lies to the N. E. Martinico east, and St. Lucia to the west; these three islands make a very picturesque appearance, and many of the mountains seem to indicate a volcanic origin. I am sorry that I have lost with my luggage a very good telescope, by which I might have had a more minute inspection of these mountains; those of St. Lucia seem to be the least lofty.

In a time of general peace, it must be extremely pleasant to cruise in this western archipelago, and to visit the different islands, as there are so many vessels provided with the best accommodations, coming and going constantly to all the different places.

We passed the Diamond-rock off Martinico, at present in the possession of the English, although there cannot be a great garrison kept there, to undertake any attack against Martinico. It is merely used for the purpose of observing what passes at Fort Royal. Several of our passengers who had been at the Diamond rock, said it was a good fortification, but from its want of a well, was badly supplied with fresh water.

This Swedish brig, though fitted out in the manner of a packet, is very small, and crowded with passengers, as there are few opportunities at present of having an intercourse with the different islands. The wind being fair when we left Martinico, we all thought that the passage would be made in a few hours, but when we were about half way the breeze began to die away, and we did not arrive till next day at St. Lucia; I was therefore the more thankful for having been so well recommended to the captain, who accommodated me as well as lay in his power.

As soon as we had landed at Morne Fortunée, and provided ourselves with lodgings, I took a walk; but this town has nothing pleasing in its appearance, the houses are all built of wood, and not being painted, they look very indifferent. The streets are likewise laid

out in an irregular manner. This place seems to be very unhealthy ; as even now, in the best part of the season, many of the Creoles or natives are afflicted with fevers ; which is not to be wondered at, as the harbour, which forms almost a circular bason, is nearly shut out from the sea by a ridge of high hills, which only leaves open a narrow channel ; this is well fortified, so that all the ships lie here in perfect safety ; yet the hills prevent the free circulation of the sea breezes, and close to the town on the other side is a forest. But as the mountains are not so high on that side, it seems that by more cultivation and clearing the country of the trees for better circulation of the land breezes, this place may in time become more healthy. I must however inform you, that I have not been up to the fort, where I might have seen better buildings.

No neutral vessels are laying here, but an English brig is ready for sailing to Barbadoes ; in time of war, they give a very short notice of their departure, for as the islands are so near to each other, intimation might be given to the enemy's privateers, to pursue them.

Barbadoes. Bridge-town, April 7th.—On the evening of the eleventh ult. we left St. Lucia, and being obliged to pass so near Martinico, the captain assured all his passengers that he should keep a careful look out, that he might not be surprised by a privateer ; and should he see an enemy in time, his vessel sailed so well that he never had any fear of being taken ; how great then was our surprise when, in the dead of the night, we heard the watch call out, “ a strange sail's ahead, and very near us.” We all hurried upon deck. The captain was in the highest degree of ill humour ; there was no time for manœuvring the vessel, and we were obliged to stand our chance, whether of meeting a friend or an enemy. But it seemed the other vessel was equally suspicious of us, and we passed each other as fast as we could. Our captain then told u

that the high mountains of Martinico, which were lying at the head of the brig, had prevented him from seeing this vessel approach, but that as the stars began now to appear, we should be enabled to descry any strange sail that might come in our way.

Towards morning the weather was very hazy, and as it continued to be so, it prevented the captain from making an observation at noon : this was the more unfortunate, as the shores of Barbadoes are very rocky, and dangerous to approach ; however, at three in the afternoon, the fog began to clear up like a stage curtain, and presented at once a full view of Carlisle bay, Bridge-town, and the adjacent country ; the captain then found that we were really nearer the island than he expected.

The prospect of Barbadoes differs very much from that of Martinico, for instead of the lofty mountains and many striking contrasts, which distinguish that island, the view presents here only a hilly country, the eminences of which, however, are variegated with many pleasant landscapes and country houses. After entering Carlisle bay, and approaching the town, the depth of the bay became considerably less, and the water so clear, that a number of sea plants was to be seen growing at the bottom.

On our arrival at Bridge-town we found all the people in motion. Many were preparing for a strong defence of the town and country, others sending their effects to the interior parts of the island ; the late attack of the enemy at Dominico, and particularly as there was not at present a squadron here to defend Barbadoes, made it the more necessary for the inhabitants to provide for their defence ; this was of course an unpleasant time for a foreigner to arrive in, and more so to me, as I did not expect to see Barbadoes in this voyage at all, and therefore was not provided with any letter of introduction, and the cash I had with me was almost entirely spent in the other two islands ; but whilst I was going to the hotel, and passing the beach, I most fortunately met Captain W.

with whom I had made the passage to Madeira, and whom you will recollect, as particularly noticed for his great talents and judgment in his profession as a mariner, and likewise for his most excellent private character: whoever once makes a voyage with him, will always prefer becoming his passenger again.

Captain W.\* was much surprised to see me at Barbadoes, and when I informed him what had brought me hither, he replied, that as he supposed I was not provided with letters of recommendation for this place, he would introduce me to a friend of his, who was settled as well at Surinam, as in this island, and whose acquaintance, he hoped, would be of service to me.

The next day I went with Captain W. to Mr. I. G. to whom I shewed my letters of credit for Surinam, and he was so obliging as to offer to become my banker during my stay at Barbadoes, and likewise at Surinam, for which place he intended to sail the first opportunity, adding, it would give him pleasure to have my company, therefore in respect to this business I can now be quite at ease.

Bridge-town is not very regularly built, the houses are of brick, generally two or three stories high, and ornamented with balconies; but as the streets are not very wide nor straight, it prevents the free circulation of the sea breezes, and makes the houses extremely hot. I have been assured by Mr. I. G. that he many times has felt in Bridge-town the heat more uncomfortable than ever he did at Surinam; but in the evening the weather becomes more pleasant here, and then it is that the ladies enjoy the refreshing air on the balconies. Yet it is surprising, that the two sexes of the free negroes should be allowed to carry on such loud and improper conversation in the streets, in a manner which certainly must shock the delicacy of the ladies, when they are so situated as to be within hearing of them; on the whole, the free negroes seem to be favoured here with

\* Captain Welch.

too much indulgence. I never pass the beach, without seeing several of them drunk, or fighting with each other; besides which, the streets are full of broken bottles, where the poor negro slaves, who never wear shoes, are exposed in the dark to cut their feet. But perhaps it would be wrong to judge of these things in a moment, when all the inhabitants of the town are called to a most important preparation of self-defence against a powerful enemy. The town has no remarkable buildings, the churches are neat, though without ornaments, and the streets are in the evening well lighted.

The adjacent country exhibits a fine scenery by a variety of well cultivated plains, and gently rising hills, on some of which are built elegant country seats, and others in the cottage style.

During my stay here, I thought it proper to write to Mr. W. C. who was a passenger in the same ship in which I went to Madeira, and concerning whom you may remember, that I wrote to you. He was the most interesting person in our society; and when he heard of my arrival at Barbadoes, he sent me an invitation to visit his estate, saying I should not take it as a mere compliment, for that he had already arranged matters for my journey. From Bridge-town to Speight's-town I went in a boat along the sea-coast; and here I had a better opportunity of observing a number of sea plants with which the shore is lined as with a rich bordered carpet, though I did not notice any unknown plant amongst them; this however may be only called the elegant outskirts of that extraordinary scenery with which we may suppose the immense depths of the great ocean to abound.

Speight's-town is a small but very neat place, and most of the streets are laid out in a regular manner. I found here a messenger from Mr. C. with a horse waiting for me. The road led through well cultivated land, but the estate of Mr. C. in particular, distinguishes itself, by many improvements; for instance, he has built a windmill, for the purpose of cleaning cotton from the seeds, which

process was formerly done by negroes turning a wheel by the motion of the feet ; but this, Mr. C. assured me, made the labourers' legs swell, and also produced many other complaints. The cleaning of the cotton from the seeds is now performed in the following manner :—as soon as the cotton that envelopes the seed in which it grew is pulled from the bud, it is made to pass through the bite of two small metal rollers, placed horizontally one over the other, and turned by the force of the mill ; these rollers passing round near each other, are fed with the cotton, which they take in by the help of a negro boy, who pushes it in with his fingers between the rollers, which prevent the seeds from passing through ; they fall into a basket standing on the ground, whilst the cotton, after passing between the rollers to the other side, drops into a box. The construction is the same as that of a sugar mill, except that the rollers in the sugar mill are perpendicular, and made much stronger to bruise the cane. This method of cleaning the cotton is so easy that it can be performed by little boys, to whom indeed it is a kind of amusement, whilst the other method was even fatiguing to a full grown negro.

In the sugar mill of this estate, when the cane has passed between the first and second roller, it bends round the middle one, by a circular frame, which forces the cane between the second and third roller, and makes it pass through without the assistance of a negro. Though both these inventions are not entirely new, they are not yet, I understand, so generally adopted as their utility seems to recommend. Besides this œconomy and attention, in the management of his plantation, Mr. C. is likewise fond of gardening ; he was the first who introduced the small white (Levant) fig tree, the fruit of which is so much esteemed for its taste when fresh, and makes the best sort when dried. Of this species he took some young trees with him from Madeira, and they are now considerably grown, in his garden.

I took a ride with Mr. C. to a plantation where there were many bread fruit-trees from Otaheite: but the fruit is not yet come to such degree of perfection as to be judged of by the taste. I was still more disappointed in a tour which we took, for the purpose of seeing a particular kind of animal plant, or sea polypus, growing here in one of the grottoes close to the sea shore; but the waves were dashing so violeutly against the passage as to make it impossible to pass through. I have been twice since, and was each time prevented by the same obstacle.

Having spent a week in the pleasant and interesting company of Mr. and Mrs. C. I received a letter from Mr. I. G. informing me that the vessel in which he had taken a place as well as myself, was to sail in a few days; I therefore hastened to return to Bridgetown by the same road that I came. The appearance of the country, though made pleasant by a number of handsome houses, and well cultivated fields, yet is too scanty in trees to render it a fine landscape; a dark shaded forest would undoubtedly prove an admirable contrast to the other parts of the scenery, which are too highly illuminated by the brilliant light of the Tropics, for in this climate the view of a large cluster of trees always affords an agreeable sensation, as conveying the idea of a cool and refreshing air.

The records of the West Indies assert, that when the first Europeans landed in Barbadoes, they found the island entirely forsaken by its former inhabitants. The Indians probably had sought a settlement elsewhere, when this island had failed in supplying them with game and fruit. The Portugeuze, who landed here in a voyage from South America to Europe, found little inclination to form an establishment, as the extensive coast of the rich and fertile country of the Brazils, which they had lately discovered, employed all their attention. The next visitants were the English; and their settlers, though few at first, considerably increased during the time of the civil war, by the emigration of many royalists, who came to settle

at Barbadoes; and their successors have always shewn a great attachment to the principles of their forefathers. By the industry of those exiles from their native soil, the island became very flourishing. It has however suffered by several violent hurricanes, and of late it has fallen off very much in colonial produce, which renders it necessary to manure the soil: this is done by the cattle being penned in at night, and lodged on a bed made of the refuse of sugar canes, and other waste materials which useful compost being mixed and trod together enriches the land, and occasions a good crop. Though this addition of labour and expense, to which the first planters were not accustomed, seems not very favourable to the present cultivation, it has the material advantage of rearing cattle, by which means the market is well supplied, and Barbadoes, of course, is less exposed to the want of provisions in time of war, than many of the other islands.

The cattle here are rather small and lean, but swift. Whether this is owing to the effect of the climate, or the manner of feeding and keeping them, I have had no opportunity of observing; six oxen are sometimes put to a waggon, which might easily be drawn by half the number of the European breed. As I am speaking here of cattle, it has been told me, that the butchers at Barbadoes never kill an ox before all its parts are sold to their different customers, which in this climate is certainly the best practice, as then the purchasers always get their meat quite fresh; besides which they may see that the animal is in perfect health before it is killed, as we in Europe have not the pleasure of doing. The butcher's meat, however, is indifferent, but the fowls are excellent, numbers of which are reared by the free negroes. Besides the principal articles of sugar and cotton for the West India market, nature produces here a liquid used in medicine, known by the name of Barbadoes tar, which is found in pits near the rocks. If many accounts of its beneficial virtues are not exaggerated, it should seem to merit a greater exportation,

particularly to the other West India islands. It is said to cure many of the disorders prevalent here ; and I have been assured by a gentleman who is a native of Barbadoes, that it will even stop the progress of the leprosy, if taken in time. How fortunate would this discovery be, as till yet so many other experiments to cure this disorder have been in vain. The person from whom I had this account is a gentleman of great veracity ; but perhaps he was mistaken in the appearance of the disorder, which might not have been the leprosy.

The common people use the Barbadoes tar, not only as a valuable medicine, but likewise in lamps instead of oil.

Owing to the great hurricanes to which Barbadoes is exposed, the planters cannot depend on the growing of the banana, which is the favourite nourishment of the negroes, for its roots do not strike deep into the earth, and its large leaves being soon caught by the high winds, the plant is rooted up, wherefore the principal diet here for the negroes is rice, Indian corn, cassava, yams, and other vegetables ; but what will give you the most pleasure to hear, is, that in all my walks, which have been so frequent through many plantations and in different times of the day, I never heard the unmerciful stripes of a whip, nor the groaning of a suffering slave.

The long wished for squadron to protect this island is arrived, and the inhabitants in consequence are become more cheerful in their conversation ; but I shall not be able to enjoy the pleasure of it, as we sail to-morrow ; I will therefore leave this letter here, with a request that it may be sent to Europe by the first opportunity.

Unless the Jason had been taken by the privateer, I should not have seen so soon a part of the West Indies ; notwithstanding it was my plan, should there be a general peace before I left South America, to take into my tour the principal islands. I might then have travelled over all the country more to the satisfaction

of myself, and my letters would of course have proved more interesting; but I am sensible, that you will consider this has been a voyage, performed entirely against my will, and therefore will accept kindly these few remarks. Farewell.

## LETTER IV.

*Departure from Barbadoes.—A Chase.—Arrival at the Coast of Guiana.—The River Surinam.—Description of the Town of Paramaribo.*

MY DEAR SIR,

*Surinam, Paramaribo, May 2.*

THE 9th ult. we left Barbadoes on a beautiful day, and with a fair wind; the principal passengers were Mr. I. G. and two officers. We sailed several days in a smooth and pleasant sea, when towards the evening a strange sail hove in sight, which, by the help of the glass, appeared to be an armed schooner, and the captain suspected it was a privateer; he therefore altered his course as soon it grew dark; but how great was his surprize, when the next morning as soon as daylight appeared, he found this vessel had followed us. The captain supposed that they must have on board of the schooner superior glasses, and it being star light, they were enabled by them to discover our manœuvres. This armed schooner shewed English colours; but this proved nothing of what nation she might be; for though in war by land no civilized nation allows itself the privilege of making use of the enemy's colours for deception, it is not so at sea; but what propriety there can be in acting here so differently might be difficult to explain.

As this armed schooner had so much the appearance of a privateer, all the letters were packed together, and a weight added to sink them if we were taken. One of the officers took from his pocket a portrait of a handsome lady, gave it a stern look, and then requested me, as being of a neutral nation, to take charge of it, as

he did not know what might happen to himself if our vessel should be captured. As our brig was a remarkable fast sailer the chase lasted several hours, during which time we suffered the most unpleasant uncertainty ; however, I had nothing to reproach myself with, as I had made particular enquiry while at Barbadoes, whether there was any expectation of a neutral ship going to Surinam, but there was not the least hope of it ; and therefore I was obliged to risk a second time the chance of being taken ; but fortunately the armed schooner, when she approached nearer to us, seemed to recognize our vessel, and discontinued her pursuit, which made us believe that she was an English cruiser on this station. You may think how happy we were when we found that she altered her course.

On the 21st of April we arrived in sight of the coast of Surinam, and as there was no other vessel in sight, we could enjoy the pleasure of our approaching arrival, without its being mixed with the least apprehension.

The weather was very serene and refreshed by the eastern breeze, but the sails filled so moderately, that we glided almost imperceptibly along the coast of the fine river of Surinam, and gave us full time to view the handsome country houses, intermixed with a great number of fine growing trees, amongst which the different species of the palm are particularly pleasing to the eye.

About eleven miles from the entrance of the river we passed Fort Leiden, which lies at the entrance of the Commewyne into the river Surinam : on the opposite side of the Commewyne is Fort Amsterdam ; and opposite, on the west shore of the river Surinam, are the batteries of Red Pamerend, all which are extremely well placed for the defence of the colony, and some of the passengers said they were of considerable strength. After advancing about seven miles more up the river, we came to Fort Zelandia, to which the town of Paramaribo is adjacent. This town has a very

inviting aspect from the river, which favourable impression, so far from being attended with disappointment, is greatly increased upon landing ; the streets are wide and regular, planted on both sides with orange trees, which blossom and yield fruit twice a year ; whilst in Italy, which is styled the garden of Europe, the orange trees produce fruit only once a year. The place where we landed is called Government Square, as facing it stands the Government House, a fine building of two stories high, but seemingly out of repair. Very nearly opposite, to the left, and close to the river, is Fort Zelandia, in which are the arsenal, several large magazines and barracks, all built of brick. Between the Citadel and Government House is situated the public walk, amidst a large cluster of tamarind trees, which commands a fine prospect over the square to the river and its opposite shore. On the other side of the square are some very handsome private houses.

Another fine square is called Orange Place, being planted with those trees. Here stands the Town-house, built of brick ; but it is remarkable for nothing except its size. Here also is the Protestant church, and a few private houses of brick ; and the other principal public buildings are a Portuguese and a German synagogue for the Jews of their respective nations. The Bank and two Free Masons' lodges are all built of wood, as indeed are most of the houses in Paramaribo. The general custom of building the houses here is by raising first a brick wall some feet high, and then building the upper part of wood, which in this climate is preferred as being more cool and dry than buildings wholly of stone ; and many sorts of the wood in this country are esteemed as almost of equal duration with metal. The houses in general are two stories high, and in the Tropics they never should be built higher, as otherwise it screens the streets too much from the free circulation of the air. There is but one street here that has many houses of three stories high, and though it is sufficiently wide, yet it is by

far the hottest street in Paramaribo. The houses have their outside in general painted with a pearl gray colour ; but the shutters and doors are relieved with green, white, and black. A few houses only have glass windows, for some inhabitants think them too hot for the climate, and therefore they prefer frames of gauze. The inside of the house in general is wainscotted with the finest dark coloured woods, of which that of the locust tree is preferable in the polish to the mahogany, and when hung with fine paintings is of a still greater lustre ; the wainscotting is often washed with lemon juice, which keeps the apartments free from insects, refreshes the air, and spreads a pleasant perfume through all the house.

But, for the sake of fashion, many of the new comers have painted the inside of their houses white, to the no small concern of the older inhabitants, who complain that this innovation entirely spoils the rooms, as they cannot be kept either so clean or pleasant as before ; besides, the reflection of the white has a bad effect upon the eyes, the light in the Tropics being too powerful for these organs, and indeed it does seem that the ancient custom is most reasonable. The town of Paramaribo is about a mile long ; some parts three quarters, and others half a mile wide. The population is esteemed at nearly twenty thousand, of which about eighteen hundred are Europeans of different nations, in proportion as they are here mentioned : Dutch, Germans, English, and French. The German and Portugueze Jews are estimated to be near three thousand, the free negroes and people of colour four thousand, and the slaves are supposed to be about eleven thousand ; but the number of the last is the most difficult to ascertain, as they are continually removing to and from the plantations. As the town is neither inclosed by walls nor gates, the limits are constantly extending ; and in the most distant streets the houses are separated from each other, by hedges of lime fruit trees, which are kept cut in the form of a regular wall. At Paramaribo there are at present two

hotels; one called the King's Arms, and another which is kept by Mr. Barker, an American. I live at the former; but as hotels are rather too noisy for invalids, I am looking out for a private lodging. A vessel being just about to sail for Europe, I take this opportunity to inform you of my at last happy arrival here. Farewell!

## LETTER V.

*A Description of the Country in the Vicinity of Paramaribo.—The public Walk of Tamarind Trees.—The Wilderness and the Forest near the Town.*

TO A LADY.

\* \* \* \* \*

*Paramaribo, August 4.*

YOUR very gracious letter, which I received three days ago, gave me an infinite pleasure, in finding that the journey you made in the course of last summer has agreed so well with you, and that you still feel the benefit of it: may this encourage you on every return of the summer season, to undertake similar excursions, which, with a happy constitution, will contribute towards an uninterrupted enjoyment of health and vigour, for many years to come!

It is with much pleasure that I perceive you entertain a favourable idea of South America, which has been increased by the account you have recently had from Count M.; however, I must confess, that the colonies of Spain in which the Count has been travelling, are much superior in variety of scenery to the Dutch Guiana; here are no romantic mountains, nor shaded grottoes, nor pleasing cascades; not even a gently rising hill is to be seen. All around Paramaribo the whole country is an uniform plain; yet its landscapes have a particularly rich appearance, from the luxuriant growth of so many different species of vegetables which, though they charm the spectator, must lose their most striking effect in description. I hope therefore you will agree in

thinking this country possesses interesting prospects, though I should fail in my endeavour to represent them to you, in language adequate to their merits.

In your very kind letter you say my friends suppose that I have chosen my residence here, in a very healthy and a most pleasant situation : this is in reality the case, though it was with some difficulty that I could get a lodging in that district of Paramaribo, which is the best situated ; however, in respect to this, I have reason at present to be much satisfied. Tamarind-street, in which I live, is the widest in all Paramaribo, and by many inhabitants is considered as the most handsome of all in the town. In the middle is a spacious canal, which is kept pure by the flooding tides, and capable of containing boats of a considerable size : here the Indians often pass in their canoes, exhibiting many curious articles for sale ; at other times negroes in large fishing boats are rowing up, having caught a manatee (sea cow) or a number of different species of fish. The space between the canal and the houses is sufficiently wide on each side for three carriages to pass abreast ; on both the banks is a row of high shady tamarind trees, and immediately in front of the houses a row of orange trees. My house, though not large, is sufficiently convenient ; it is one story high, has two rooms and a cabinet on the ground floor, a bed-chamber up stairs ; and the kitchen is in a separate building, which is here a general custom ; my landlady possesses besides three other houses, and all fronting the street, connected by a large court, a part of which is planted with the finest tropical fruit trees, and the other part enlivened by a number of all sorts of Indian poultry. In this situation I can enjoy the society of the town, and still more that of rural life, which is so beneficial to my health ; with the rising of the sun, which is here about six o'clock, I am awakened by the delightful notes of the Goda bird, a pair of which nestle under my roof. This little bird, which from the harmony of its song, as well as from its general figure, though less in size, may

be styled a nightingale, is of a most tame disposition, coming frequently into the houses, perching upon the window shutters, and without any fear continuing to chant its sweet notes. My rooms are always refreshed with the breezes from the canal, and the cooling shade of the trees. When in the morning I leave this pleasant situation to take a distant walk, it is in general to the Society-ground; leaving the town on my right, and passing through different alleys of orange trees, I soon get into the road, where lie the principal pleasure grounds of the more wealthy inhabitants of Paramaribo. These gardens abound with the finest fruit trees, and the walks and grounds are all kept in the best order, but the dwelling houses adjacent to the gardens, though neat, are built too uniformly to please the eye: however, many of those which have been lately built, display a better taste. Through a considerable district laid out in this manner, a spacious road leads to the river Surinam, where the scenery is greatly animated, by the numerous vessels and pleasure boats which are continually passing and repassing. On my return I go through the town, visiting some of my acquaintances, and in general return home before the sun becomes more powerful, that is about ten o'clock.

The public walk, which in the hottest time of the day might become a place of refreshment, is very little frequented; its situation is between the Government house and Fort Zealand, and it commands an interesting prospect over a fine square, the river Surinam, and the opposite bank, but the inhabitants of Paramaribo complain that this cluster of large tamarind trees, with their immense foliage, imbibes too much of the rising vapour, and thereby prevents a free circulation of air. The ground on which these trees stand, remains much longer damp than that which is under other species of trees: the tamarind tree has never been found growing here wild in the forest, and it is therefore supposed to have been brought over from the coast of Africa. As a great part of the

season is subject to very hot and dry winds, the tamarind trees are extremely well adapted for that part of the world; and even here this handsome tree will do very well when it is planted singly, but when crowded in large clusters together, the shade, though inviting, is insalubrious through the greatest part of the year.

In some of the great capitals of the northern countries of Europe, large halls are built for laying out in them a winter garden, as well to shelter the persons who walk there, as the plants from the intense cold; perhaps it would be no less desirable to see in this country a hall erected, for the purpose of screening the inhabitants, and the tender plants from the intense rays of the sun; to effect which the Tropics want neither stone nor timber, the palm in particular would perfectly answer this beneficial use; this singular tree has been at all times an object of admiration, I shall therefore not venture to add any thing more in its praise; but I should wish to propose that a number of palm trees be planted so near together that their lofty tops might form an arched roof, through which the rays of the sun could not penetrate, whilst their large pendant leaves, like fans, would occasion a most delightful breeze; their trunk, rising as the finest column, might be set round with those winding plants which have a natural inclination to grow about them, and to decorate them with their beautiful blossoms, forming occasionally festoons, from one tree to another. All these palm-trees together, should form a kind of hall or temple, so that, under the protecting shade of their lofty canopy, no damp would ever be experienced. The real garden to be planted should consist of the finest sorts of shrubs, distributed by the contrasted effect of their coloured blossoms, flowers, or shaded leaves in variegated groups, here and there a different species of tree planted, with resting places, shady alcoves, and a running stream, winding through different parts of the walk. I request your pardon for having dwelt so long on this idea of an imaginary improvement:

yet a proper public walk, is certainly of some importance to a large city, more particularly in the Tropics, where gentle exercise is essentially requisite to health, but which is here not often attended to by many, who do not like to go in quest of a pleasant walk, at a distance from the town.

As you delight so much in the scenes of nature, I am persuaded you would be much pleased with a view of the country, where I take an afternoon walk. The heat begins to abate about three o'clock ; and at four it becomes very pleasant. In taking the course of the large canal, which is before my house, I get into an extensive savannah that leads into a wilderness, which is the beginning of that immense forest, which spreads all over the uninhabited part of Guiana. There are only a few roads for carriages, but the negroes who are sent here to fetch wood, have cut many winding walks ; and the whole wilderness resembles a fine park. It is in this pleasant place that I find myself in reality transferred into a new world, which differs so much from animated and vegetable nature in Europe, decorated with an eternal verdure, and beautified with a number of blossoms, of which the wild cocoa is the most elegant.

Of the many alleys that are formed here, one which I frequent the most winds along a serpentine river, where a number of beautiful butterflies are often hovering over the flowing mirror ; and seem to delight in the reflected splendour of their glittering wings ; but a still more brilliant spark darts from the blossom of a tree ; this is a humming bird, which flies with surprising velocity through the air, and vanishes amongst the thick and broad foliage of the palm-tree ; the rivulet forces its way through the rich vegetation into a small but very pleasant savannah, which is surrounded by different kinds of lofty trees, amongst which the silk cotton tree is the most distinguished, exceeding by far in height and the picturesqueness of its branches, the venerable oak of Europe ; close to its trunk, I have made a kind of turf seat, and have since perceived I

am not the only one that frequents the place. I found a piece of string, with red beads, laying near the seat, and the other day a broken walking stick, of a wild ratoon cane. The European inhabitants do not like to take such distant walks; and there is no road for carriages that leads to this place, and the approach is not passable even on horseback, as the branches of many trees grow very low; perhaps some aged negroe rested here, with his heavy load; or a negress suckling her new born child, and enjoying in this solemn retreat undisturbed the tender feelings of a mother. When a person frequents this sequestered place, it must afford him some pleasure to find that so delightful a spot is not entirely neglected by his fellow creatures.

A great number of different birds frequent this place, and seem to be attracted here by the neighbouring rivulet. The variety of their lively coloured plumage forms a beautiful contrast to the dark verdure of the surrounding foliage; the notes of many species of these birds, though they do not vary very much, may be in some respects compared to the Russian musical horns, each of which has its peculiar note, yet when there is a sufficient number of them to complete the whole octave, play all the varieties of a tune: so it is with many of the songsters, when they are heard chanting together in the lofty trees of the forest.

It is time to quit this place of solitude, from which many different and pleasant walks lead towards my home; one in particular is marked by a number of Nibbees, that had been first growing round a large tree, which has since died away, and its remains almost entirely vanished, whilst the surrounding plants are still in their perfect vigour; they now form a fine transparent column; many of these plants are winding round other healthy trees, sometimes pendant from one branch to another, festooned in every variety and with unaffected elegance, shewing that nothing but nature was the author of the ornament; where this walk leads, the ground becomes lower:

plenty of underwood is growing, and mixed with large trees, gives to this place a very dark shade, rendering it the favourite retreat of shy birds, and those of prey, which by their shrieks make the forest resound as if it were haunted by evil spirits. The trotting of large quadrupeds is heard, but the thick foliage hides them from the sight; yet there is no reason to fear any ravenous beast, for even the tiger of Surinam does not attack the human species; the crocodile is only dangerous near the rivers; and with respect to the venomous serpents, my faithful terrier who accompanies me is sure to give me timely warning when we are near them. The sun is sinking fast in the west, and therefore I double my pace, hearing the harmonious and ever varying song of the true mocking bird, which being fond of the neighbourhood of habitations, assuredly guides me out of the forest, by its sweet notes.

My way back passes by the burial ground of the Moravians, which is planted in the manner of a garden, and when they bear the last remains of a brother to this place, they call it conducting him to his home.

The sun sets about six o'clock, before I can arrive at my house; but in the cloudy evenings of the rainy season, a number of tropical fire flies illuminate the hedges of lime-fruit trees, which are planted in the front of the street: and in the dry season the stars of the zodiac shine with uncommon lustre,

But I am fearful of having trespassed too much already upon your indulgence, by the long description I have entered into of these tropical walks, in an attempt to give a true picture of the environs of Paramaribo, and therefore will add no more to this letter, subscribing myself with the greatest respect, &c.

\* The worthy lady to whom this letter was addressed died much regretted, from the consequences of a contagious disease, the measles, which she caught in an advanced age.

## LETTER VI.

*A Tour to the Commewyne—Description of the Upper Commewyne and Cottica Rivers.—A Cotton Plantation.—The proper Situation for a plentiful Produce of Cotton,—sometimes fails by the Devastation of an Insect,—a Method how it might be prevented.—The Ground not favourable for the growth of Vegetables for the Subsistence of the Negroes.—The Means used as a Substitute.—The Canal of the Matopica River ;—an intended Alteration of its present Communication with the Sea.—Return to Paramaribo by the Hoerhelena Creek.—Great Hospitality of the Inhabitants of this Country.*

MY DEAR SIR,

Paramaribo, October 24.

IT will surprise you, perhaps, to find that I have, not long since, made a journey into the country, but I can assure you that this is attended with many difficulties, particularly to a stranger ; my desire to make this tour was much abated by an observation of Mr. —, who told me that I should probably be greatly disappointed, if I expected to get much information respecting the mode of cultivation in this settlement, by a journey to the different plantations ; especially, added he, as it is known here that you intend, after a short stay in this country, to return to Europe, where many of those residing on the plantations are by some means or other particularly connected. They consider it therefore as of little utility to yourself, to gain this kind of information, and that it may possibly bring them into some trouble, should their conduct be misunderstood, or things be misrepresented, which sometimes may have been the case ; for this reason they look upon all enquiries respecting the cultivation of the plantations, at least as improper, if not impertinent ; and I have heard of some

gentlemen, who, when they stopped in their excursions at different plantations, and seeing the negroes working, have asked some questions respecting the produce, have received uncivil answers from the European manager. However, as I had not the least doubt but that there must be some amongst them, who had nothing to fear from general enquiries, I was therefore highly pleased, when Mr. S——s came and invited me to take a tour with him to the Warapper creek. Mr. S——s himself possesses landed property in this colony, and I have heard that under his administration several of the plantations prosper. There is but one method of travelling in this country, for there is no public road, except to a very short distance from the town, and the military road, which surrounds the most distant points of the cultivated parts of the colony. But as all the plantations are either situated on the banks of the large rivers, or have a communication with them by navigable canals, all intercourse between the town and the country is carried on by water; and as there are no public inns on the sides of the rivers, those who intend to make a journey procure letters of introduction, and take with them some provisions in the barge. The setting off depends on the tide; and after some hours of rowing, the boat stops at the destined plantation, where the travellers are received with great hospitality, and a couple of hours is usually spent at dinner in cheerful company. After dinner, when there is not time to take a walk in the fields, it is proposed to see the magazine, which contains the crop of the estate; the barge being now made ready, tea is presented while she is proceeding; and after a few hours she stops again at the plantation, where it is intended to remain the night; and the strangers are received with the same urbanity as at the last place; a supper is immediately prepared, and the most convenient place chosen for slinging the hammocks, which every traveller takes with him. Thus the first day's journey is finished; and the following day begins in the same manner, either first taking

breakfast at leisure in the house, or, if more agreeable, in the boat.

Though it may be truly said that this is a very convenient, and even pleasant method of travelling, yet it is to be regretted that it affords less opportunity of seeing the state of the country, and the improvements of cultivation, than could be had in travelling by land.

Mr. S——s had a fine barge, with a large and elegant cabin well stored with all sorts of provisions and all the comforts of life; it was rowed by eight stout negroes, and as the tide flowed early in the morning, we began our journey with the rising of the sun. On the right side of the river Surinam, from Paramaribo to Fort Amsterdam, we counted the buildings belonging to six plantations, but the land on the left side, after passing Fort Zeland, is divided into smaller portions, generally consisting of country houses and pleasure grounds belonging to the citizens.

We stopped at Fort Amsterdam, to take a pleasant walk beyond the fort, and to give the negroes an opportunity of refreshing themselves; and this gives me the pleasing occasion of informing you, that the custom of making them row against tide is now abolished, and as the stages are so short from breakfast to dinner, and from thence to the plantation fixed upon for resting all night, the negroes seem not to be fatigued, but sing together all the way, keeping time with their oars; sometimes one negro sings a line, and beats the water with his oar in a particular manner, which gives a signal for marking the time, whilst the other rowers repeat the line in a chorus.

From Fort Amsterdam we entered the river Commewyne, which is estimated to be about three quarters of a mile wide; the banks of this river, though later cultivated than those of the river Surinam, are in a more flourishing condition, and as it runs parallel with the sea coast, they enjoy the benefit of the sea breezes, and are reckoned

more healthy. Coffee is mostly planted on the estates which lie on the side of this river, and as its preparation requires many buildings, the plantations have a fine appearance. Most of them have also large and elegant dwelling houses, which indicate that the planters who built them originally intended to remain here with their families; but most of them are at present in Europe, while the director, or, as he is called, the overseer, lodges in one or two rooms, and the rest of the building falls into ruins.

About sixteen miles from the mouth of the Commewyne at Sommeldyke the river divides into two branches: the one, called the Upper Commewyne, lies to the south, and its banks are said to be as fertile as those of the large river Commewyne; the second branch is the river Cottica; and its banks are so fertile that the inhabitants of Surinam look upon this part as one of the principal sources from which flow the riches of the colony. In ascending this river to its source it runs first in many serpentine windings almost parallel with the sea coast, with very rich plantations on both sides of it; but higher up the river turns to the south, and approaches to the great river Marawini, and in former times there have been along that part of the Cottica very considerable plantations, but they were all destroyed by the revolted negroes, particularly about the year 1773, of which Capt. Stedman has given a full narrative. I have been assured by several directors who have visited that part of the country, that the soil there is one of the best in the colony, and particularly excellent for coffee; and being a rising ground, its situation is reckoned very salubrious; but it cannot for the present be inhabited by Europeans, as it is the favourite refuge of the bush negroes, or deserters, and being in the vicinity of the Marawini, they can immediately on an apprehension of being attacked by the people from Surinam, cross over into the country of another nation;

and though it might be expected that the inhabitants of Cayenne would not assist these rebels, yet as that country is but thinly inhabited, and worse cultivated than Surinam, the fugitives always find there a safe retreat.

Animated by the great fertility of the borders of the Commewyne, some planters began to try the land situated between that river and the sea coast, and soon found it excellent for cultivating cotton of a superior quality: this created a most rapid speculation among the inhabitants, and several canals have been cut, as well to drain the land, as for the convenience of a communication to the town. Two causes seem particularly favourable for the growth of fine cotton in this district; the soil is dry and sandy, and mixed with many saline particles; and the heavy rains, though often destructive in other countries to the blossom of the cotton, are not dreaded here, as the strong sea breezes carry the thick clouds to the more interior parts of the country; there is one evil which sometimes occasions failure in the crop of cotton here, as elsewhere, which is a small insect that feeds on the buds whilst they are very tender. In Europe a method has been recently adopted for preserving valuable plants from insects, by planting some other species near them, of which it is known that the insects are remarkably fond; thus enticing them from the valuable plant to its more favourite neighbour, which, when it has answered its purpose, is rooted up and destroyed along with the insects upon it. Plants of a similar quality might here be found to attract these pernicious insects, and thus a great saving would be made of cotton. It might be worth while for the government to offer a reward for the destruction of these vermin, but perhaps it may be said that the owners of the plantations ought themselves to devise the means of preserving their cotton from the devastations of these insects; but we know men in general are less inclined to exert themselves in preventing a loss than in getting profit. Besides, it ought

to be considered that those who might be able to make this discovery, if they were stimulated thereto by the prospect of a reward, have no immediate interest in the growth of cotton.

Before any better discovery is made, I have recommended to different directors here to try a machine that I saw in England, and which was said to answer extremely well there for destroying the insects on fruit trees. This machine consists in a pair of common sized bellows, the tube of which passes through a metal hollow ball about six or eight inches in diameter: the ball is filled with burning tobacco leaves mixed with some live coal, and the end of the tube or the nozzle of the bellows has a number of small holes through which smoke passes when the bellows are worked. Now if two or three negroes were employed with such a machine to smoke the cotton fields from the side where the sea breezes set in, the insects would no doubt soon be destroyed. The fumigation could not hurt the cotton itself, as it is said the insect appears before the cotton is generated in the bud; but to be more certain whether it would be an injury to the cotton or not, they might first try a few shrubs when they are just in the state when the insects usually attack the buds, and thus determine whether the smoke would occasion any difference between the produce of those shrubs which have been fumigated, and those which have not.

I have requested, should this insect appear whilst I am in the colony, to have a branch of the cotton with the insect thereon, that I may make some observations upon it.

The species of cotton cultivated in this colony goes under the general denomination of shrub cotton,\* and each plant produces from half a pound to a pound annually in the two crops. One acre

\* The planters at Surinam make a distinction of three different sorts of bush cotton they cultivate: the best is called the black seed cotton, which, when sown in a good soil, and particularly near the sea coast, is said, will continue to vegetate in this country more than twenty years; it would grow near twelve feet high, but as it is thought that

of land is said to contain about three hundred bushes, and a labouring negro of the first class can manage two acres ; consequently thirty or forty negroes will by their labour produce a considerable profit.

The cotton mills are all built according to the first imperfect invention ; the negroes are obliged to turn the cylinders by the constant motion of their feet alternately on treddles which are connected by cords to the cylinders, and the same as I have more minutely described when at Barbadoes. In mentioning here those improvements which had been made at Barbadoes, I was answered, that some years ago a gentleman at Surinam received a model of a mill from North America, which not only served to clean the cotton from its seeds, but performed also some other parts of the work ; however it had been thought that the mechanism was rather complicated to be introduced here, and particularly, as it was considered that should the works get out of order, there would be a great difficulty in getting them repaired. This may be true in respect to that model, but the mill which I saw at Barbadoes was made on a very different construction, and whoever is employed here to build sugar mills, can build those kind of cotton mills, and as easily repair them, since they are made on the same principle. These mills

the too great extension of the branches must take too much nourishment from the roots, and thus prevent a more plentiful growth of blossoms, the bushes when about six months old have all their branches clipped, about three feet from the ground up to the height of five or six feet, which gives an easy access to gather the cotton, and a bush of this sort will on an average produce a pound of cotton per annum. After the second crop about December the branches begin to wither, and then being cut off they are supplied by new shoots coming forth from the same root. The second sort of bush cotton resembles the first in the shape of its leaves and their colour, which are of a bright green, but the seeds are of a bluish slate grey colour. The third sort is distinguished by its leaves and buds, which are of a brownish colour : this last kind is the least productive, and its cotton even of an inferior quality. I have seen a sample here of the nankeen coloured cotton which was said had only been planted for curiosity, as the colonists do not expect to get sufficient profit from cultivating this sort,

would be very useful here, as they could be put in motion by the strong sea breezes which constantly prevail.

The soil and the climate which are so favourable on the coast for the growth of fine cotton, are not calculated for the cultivation of those vegetables which serve as nourishment to the negroes. The Banana, which is the most nutritious, and is indeed the favourite food of the negroes, will not grow well here, as the soil is too dry, and the rains fall too seldom; for the growth of casava, or other sorts of edible roots, the soil seems to be too much mixed with saline particles, and thence, it is said, they get a bad taste, wherefore the cotton planters on the sea coast, if they do not soon obtain some other plantations situated in the interior parts of the country for cultivating those vegetables, will be obliged to purchase them from other planters who have a greater abundance than is necessary for the consumption of their own negroes. But in a very wet year, when the internal parts of the colony are greatly inundated, the bananas are loosened and thrown down, as the root does not grow deep in the earth, and the other provisions for the negroes consisting also in roots, suffer by the too great moisture of the ground: scarcity then prevails, and is principally felt by the cotton cultivators.

The bread fruit of Otaheite, though it seems not so compact nor consisting of such glutinous and nourishing particles as the banana, may, however, be considered as possessing equally useful properties with many other esculents. Its root strikes deeper into the ground than that of the banana, and the tree does not require so much rain for its growth; it seems, therefore, that on the sea coast it might be planted to great advantage. But the most of these Otaheitan trees that I have seen in this colony are of the species which bears a fruit very much in shape and taste like a chesnut, many of which are included in a husk which is in the shape and size of a small melon. The leaves resemble those of the real bread-fruit tree; what differ-

ence there is in their blossoms I have not yet had an opportunity of examining; Dr. D—— was so obliging as to send me the real bread fruit. This fruit, when it is half ripe, and then roasted, tastes the most like the finest flour bread, as I can declare from experience; but the fruit when entirely ripe is stated to taste like rich gingerbread. I have been assured by a gentleman who has some of the real bread fruit trees on his plantations, that this tree will multiply here very fast, by cutting a limb off the root and planting it. But the valuable bread fruit tree, which has been brought with much expense from the islands of the Pacific Ocean, is not yet esteemed in the western world as it really merits. However, we cannot be much surprised at this, when we consider that it is not above sixty years, since several European princes found themselves under the necessity of offering rewards to those, who would cultivate a proper quantity of potatoes in those countries, where this valuable root now forms a principal article of sustenance to the country people, and a favourite esculent at the the tables of the rich.

I have seen many Negroes here on the cotton plantations, full of ulcers and scorbutic complaints, which seem to arise from the brackish water they are obliged to drink, there being no other near the sea coast; and to fill large cisterns of rain water would be hardly possible, as it rains here but seldom; they might however get fresh water at no great distance from the upper Commewyne.

The rowing down the canal of the Warappa creek is particularly charming, as many plantations have very fine buildings, and on some there are so many houses, as to have the appearance of villages: the whole scenery calls to one's recollection, and may be compared to a tour on a canal, through the richest provinces in Holland.

At the end of the Warappa creek is situated the plantation Alsimo, which produces very fine cotton, and has a view of the sea. The air is delightful, and the directors who live in this part of the

colony, enjoy as good a state of health as in any part of the world. This is not only owing to the dryness of the soil, but also to the clearing of the coast from the mangrove trees, which formerly prevented the free circulation of the sea breezes. By cutting a canal from hence to the sea, in heavy gales of wind the waves have forced their way so violently against the points of the canal, as already to have washed away a considerable part of the land on the coast. This has alarmed the owners of those plantations which lie nearest to the canal, and several of them have sold their possessions. Paramaribo also formerly possessed a great advantage, in being out of danger of an attack from an enemy till all the fortresses were taken, but now it is completely exposed by this method of cutting separate canals into the sea; and of this it had experience in the last attack upon the colony, when a body of troops went up this canal and took possession of the country before the fortresses surrendered. Though it is now better guarded by a military post being stationed on the canal, yet this always weakens the garrison of the fortresses.

I have heard that there is a plan proposed, to fill up the present communication of the canal with the sea, and to make a new opening in an oblique line, though not far from where it now is; but even this does not seem to promise any abatement of the danger, which would be more completely effected if the new projected canal between the river Commewyne and the sea coast were to run parallel with, and at an equal distance from, them both; leading into the entrance of the river Surinam; between the battery of Leyden and Bramspoint, where the canal would be as well defended from the approach of an enemy, as secure from the encroachment of the sea; but it seems this projected canal will not be very speedily executed, as the owners who possess land along it, must all of them contribute thereto, and send their negroes to work upon it.\*

\* This may be more clearly understood, by referring to the Map of Surinam, just published by Mr. Faden.

From Alsimo, on our return to town, we visited a plantation, lying on the Hoerhelena creek, which has its name from a celebrated courtesan, who is said to have resided here in former times. This creek is on the right side of the Commewyne, and its course is south, towards the interior parts of the country. The land as far as I have seen is very low and marshy, and the director complained he was much afflicted with the ague; yet it is said that some very valuable tracts of land lie along this creek. On our return to town we visited a plantation on the Commewyne, where a Mr. B—— is director; he employs his leisure hours in drawing the outline of birds from the life, and of the natural size, on a sheet of paper, and then filling it up by pasting on the feathers of the birds. His extensive collection is very neatly done, and he has refused a considerable sum, which he was offered for it.

I cannot finish this letter without speaking highly of the great hospitality which we every where experienced; it made the whole tour, which was of a considerable length, quite an excursion of pleasure; and which I the more enjoyed, as my health seems to improve much in this climate, and if it continues to improve, I hope that when I have the pleasure of seeing you again, you will find me greatly altered for the better since we parted.

## LETTER VII.

*Celebration of the first Day of the New Year at Paramaribo.—Militia of the Colony.—Festivals of the Negroes.—The Conclusion of the Day.*

MY DEAR SIR,

*Paramaribo, January 1st, 1806.*

THE days of the greatest public festivals at Surinam are, the commencement of the year, and the fourth of June, which is the birth day of the Sovereign. The militia then parade in the great square and fire several volleys. The most that can be said in their favour, is, that they are well dressed, and have a good band of music. There might be selected a respectable corps from amongst them, because many of the inhabitants have served in the army, and others have a natural talent for military exercise; but as the whole militia has been established here on a strict equality, and as it is required that every inhabitant should be enrolled, with the exception only of those who have places under government, or who can assign some very important reason to be excused, it is necessarily made up in a very irregular manner, and many individuals cannot be brought to expertness in exercise or discipline; and when there is a review, the rest of the inhabitants go to the place of meeting as a matter of amusement, and the most sensible persons in the militia, cannot refrain from laughing at some of their comrades; however, it must be said to their credit, that they keep good order and police in the town, as they mount guard at night, and frequently patrol the streets.

The fourth of June concludes with a splendid ball, given by the governor or general commandant, to which all the principal inhabitants are invited, and the festival is quite in the European style.

On the first of January the free negroes, by permission of the government, meet in a large place near the citadel, and have a dance ; their dances vary according to the different negro tribes, though all consist principally in the muscular movement of their heads, and arms, turning of their bodies, accompanied by very quick steps, keeping time very exactly to the music ; but their attitudes and expression are sometimes extremely licentious.

The musical instruments are chiefly pieces of hollow trees, the upper part covered with leather like a drum, and are beaten with sticks ; but these instruments are in different forms to vary the sound ; the negro females who are not engaged in dancing, have strings with sounding nut shells, which they clap to with their hands, and sing a chorus to it ; the most curious thing is, that the musicians are as much in motion as the dancers, and all mark the time most expressively with their feet, accompanied with the motion of the whole body, so that those who perform the music may complain the next day of being as much fatigued as the dancers themselves : besides, those negroes who cannot get partners, will dance round a tree, or even to their own shadows ; and the whole assembly is in such a motion, as could not be exceeded by the effect of the powers of the enchanted musical horn of Oberon.\* A lady lately arrived in the colony, came for a moment to see this negro dance ; but she was obliged to quit it, as she declared that her eyes were so affected by the rapidity of the motions of the performers, that her head became dizzy, and she was afraid if she staid but a short time longer, that she should faint away.

Many of the principal inhabitants in town, likewise give a dance to the negroes, which is also the case in almost all the plantations in the country, about Christmas time, when various presents for dress and entertainment are distributed amongst them.

The ladies in town are fond of seeing their negro female servants

\* Oberon, a poem from the German of Wieland, by William Sotheby, Esq. the second edition, Canto ii. p. 57.

well dressed at these balls ; and they then generally wear muslin, or fine calico habits, short-waisted and made in a fashionable style ; the head is decorated with a turban or muslin handkerchief, and they have gold chains round the neck and arms ; but many of the male servants make a most grotesque appearance, as they save all the cast off clothing their masters have given them from their own wardrobes in the course of many years, for the purpose of making a great shew on new year's-day, so that you may see the fashions of half a century, worn by them at once ; others shew a better taste : all prefer the lightest colours, the better to set off their complexion.

I dined with a venerable old gentleman, Mr. S. and under the shade of royal palm-trees, and regaled by the perfume of flowering orange-trees we celebrated the first of January. The toast on this day was, " our friends abroad ;" and in that moment my thoughts took a flight to you, my dear sir : in this flight of fancy I saw you sitting at a round family table, with your children and grand-children, celebrating the day after the manner of our ancestors ; I then visited some other of my friends in the same manner, and wished you all a happy new year. A part of the evening was spent in seeing several of those negro festivals, and then I returned home, to write to you the history of the day.

## LETTER VIII.

*First Establishment of the Colony of Surinam.—Difference between the East India and the West India Commerce.—Acquisition of this Colony by the Dutch.—Different Changes of Government.—Its First Prosperity—Stagnation, and Decline.—Its present Government.—Mode of conveying Letters from Europe to Surinam.*

MY DEAR SIR,

Paramaribo, March 15th.

YOU will agree with me, when you consider under how little favourable circumstances the colony of Surinam was established, that the flourishing state of the colony does great credit to the inhabitants. After the Dutch obtained possession of this settlement by exchanging for it New York, with the English; the province of Zealand claimed a prior right to the colony, as her natives had settled first on the river Surinam; this claim, however, was soon ceded to the West India Company, which had then been established on the plan of the East India Company, though the manner of carrying it on, and the commerce itself, of the western world, differ very widely from the East India trade, as Dr. Adam Smith has observed in his Treatise on the Wealth of Nations.

In the East Indies, the Europeans cultivate no land, which work is entirely left to the natives, and nothing but an exchange of goods, or purchasing them with specie, is carried on between the Europeans and Asiatics. It was therefore feared in Europe, that if this commerce should be laid entirely open to all traders alike, the great profit which it affords, might induce too many to enter into the speculation; for whilst in such a long voyage the return of the

vessels must be often frustrated, even many of those merchants whose vessels might arrive safe, for want of a sufficient capital, would be obliged to sell their cargo without an adequate profit, and thereby undervalue the whole market of East Indian goods. On this account it was thought best to establish companies, whose members possessed capitals of so much importance, that when united, they could wait for any length of time for a reimbursement, without being shaken by any unfortunate accident that might occur in the course of trade.

But the commerce of the West Indies, as well as of all America, differs very materially from this, for the country here possessed by the several European powers is peopled and cultivated by the Europeans, and therefore may be considered as a real province of their respective states, differing only from the other provinces in respect to distance, climate, and productions. The prosperity of those lately acquired provinces, depends much on the advances of money according to the situation of the new cultivators of land, from whom the return of profit cannot be expected so soon as that of a mercantile company, or in such proportion; but where a colony is under the immediate protection of a European government, and is assisted thereby, its wealth, though it may be slow in growth, becomes more solid and important, and then the commercial business can be thrown entirely open to the traders of the parent country, of which people of small fortunes may advantageously avail themselves, as the passage, in comparison to that of the East Indies, is but short, less dangerous, and the return of profit soon made. Surinam, since its first discovery, has experienced all these circumstances; its first settlers seem to have been a few English and French adventurers, who cultivated tobacco; but when in the year sixteen hundred and sixty-seven this colony was ceded to the Dutch, and the West India Company of that country got possession of it, these traders not being inclined to furnish a pro-

portion of capital, essentially necessary for the support of the inhabitants as well as for the other unavoidable expenses of a new colony, ceded a third part to the magistracy of Amsterdam, and an equal portion to F. van Aarsen, lord of Sommelsdyke, and these three parties were to govern the colony, under the name of the society of Surinam ; and by a law, mutually agreed upon, the inhabitants of Surinam were obliged to furnish a considerable revenue to these three proprietors ; thus, besides labouring under the disadvantages which could not fail to embarrass a new settlement, the settlers, instead of pursuing the objects best calculated to improve their condition, were obliged to follow the course most beneficial to a mercantile company, the magistracy of another province, and a private gentleman. And though the family of Sommelsdyke afterwards sold their share to the two other parties of the society of Surinam, the multiplied taxes were not diminished ; some of these were laid upon objects which, instead of such imposition, required protection and encouragement : thus, for instance, a tax was laid upon all children, as well whites as negroes, born in this colony ; another impost was levied upon cattle, the breeding of which ought to have been encouraged as much as possible, not only for consumption, but for their utility in working those sugar mills that are not situated upon the rivers.

The commerce of this colony was likewise under other restrictions, for even Dutch vessels were not allowed to trade here, unless the captain belonged to the society of Surinam. An exception indeed was made in some respects with regard to the English, as they were able, by their possessions in North America, to furnish this colony with many articles at a less expense than the society of Surinam could do, especially with salt herrings for the negroes, tobacco, and spermaceti candles ; but they were only allowed to take in return molasses or syrup to make into rum. This commerce is at this time continued by the North Americans, who also

bring hither horses, which are found to endure the climate much better than those of Europe ; and likewise mules, which are of a good breed, and answer well in this country.

However, under all the restraints the inhabitants of Surinam suffered, they still hoped, from the great fertility of the soil, combined with their own industry, to be at last well rewarded. The Dutch in their own country had learnt the best method of clearing inundations and draining marshy grounds ; they also knew how far this would render the air more salubrious. Thus induced, a considerable number of settlers went over, and the colony was beginning to be important, when an extravagant speculation unfortunately took place : Dutch counting-houses were established, where persons who wished to cultivate new land, could easily get an advance of money : many ruined themselves by engaging in projects beyond their means, and others were forced to sell their land at the very time they had every reasonable prospect of its producing a good return ; as their creditors pretended not to perceive this, and declared they could not wait any longer for their money, a general distrust in all matters of credit took place, and this might have ruined the prosperity of the country, had not some of the long established planters and their families, who had already acquired a fortune, supported the interests of the country ; but the greatest danger which threatened the total ruin of this colony, was the revolt of the negroes, who destroyed a great number of the finest plantations, and murdered all the white inhabitants that fell into their hands ; and though at last a peace was concluded with them, it was feared by many that the tranquillity would not be of long duration ; and this fear was much encreased by the example which was set by the revolted negroes of St. Domingo : under this apprehension, the most wealthy planters of Surinam, expecting that they should be the first to fall a sacrifice, left the colony. From that time Surinam has been visibly declining in prosperity, and the change is so much felt, that a Dutch

gentleman with whom I was in company, declared he thought it proper a law should be enacted, obliging every planter who would not reside in the colony, to sell his plantation. But in answer to this, I could not help observing that it would be too hard a measure, since many well founded reasons might prevent a planter from returning to the colony ; and if he was obliged in that case to part with his plantation, it would sell much under its real value, as often happens in the case of a person's property being seized and sold for the benefit of his creditors : for in both instances it is known that the articles must positively be sold ; however some encouragement might be given, or a particular benefit might be granted, to those of the planters who resided in the colony.

It is the opinion of some in Europe, that it would be better for the parent country if the rich planters were to return ; but whatever good regulation the owner of land may have made, on leaving the colony, yet, after many years absence, his plantations will fall gradually into decay, and the revenue of course decrease, by which means the parent country must also be a loser ; whilst, if he resides in the colony, a great part of his income is still sent to the parent country by his purchase of manufactured goods, and the rest of it is employed in the useful improvements of his plantation. Besides, if there are no rich owners of land residing here, who will, or indeed who can, try any plan of improvement, which only experience can shew to be profitable or not ? Several times, when I have asked whether such an alteration would not be better, the answer has been, perhaps it might, but we have not fortune enough to venture in an uncertain trial.

With respect to the government of Surinam, it has not been materially altered since the English have taken possession of the colony.

The English governor and commander in chief of the troops presides at the supreme court, which consists, besides him, of the

deputy governor, the fiscal, who is the next in rank of the civil power to the governor, a secretary, and nine other members; the last members the inhabitants of Surinam have a right to elect amongst themselves, but they can only be chosen from those who possess landed property in the colony. They must be confirmed by the governor, and their places are for life, but without any emolument: so that none should fill them but persons of independent fortune and principles. In this superior court all matters concerning the government of the colony are considered, and all criminal causes are tried.

The second established court is called the court of civil justice, and of which the members are elected by the first court: it consists of the governor and ten members, who are elected every four years, and a secretary, whose place is for life. All business transacted here on civil matters does not require the decision of the supreme colonial court, as there is a right of appeal direct to the European government.

In the third court are a vice-president, who judges in the name of the governor, and nine other members, elected also for four years, and a secretary, who is for life. This court has only cognizance of actions of debt which are not above two hundred and fifty florins. Those cases where the debts are larger must be laid before the second court.

There is also established here, by the government, a court for orphans, which consists of two commissaries and a secretary: this court has also the charge of the property of those who die intestate, gives notice to the heirs of the deceased, and makes a proper division of the effects among them.

From these well regulated laws, it is reasonable to expect, that as soon as a general peace among the European powers shall be re-established, and some regulations made respecting St. Domingo, for the purpose of preventing any dangerous consequences from

thence to the other colonies, many rich planters will return, and thereby contribute to raise Surinam to a highly flourishing state.

I must inform you, my dear sir, that there is no regular packet established from Barbadoes to this country ; therefore sometimes two or three mails from Europe, sent by the way of Barbadoes, are lying together, till an opportunity offers of conveying them here by a trading vessel, and then they are sent altogether. By this you will perceive that sometimes not only the letter, but all the duplicates, may be lost at the same time, if such a vessel should meet with any accident, or fall into the hands of a privateer. I do assure you this makes me often very uneasy, when I hear of a vessel bound to this colony being taken. For my part, I shall keep a copy of all the letters I write to you, and should some be lost, you will see, at least when I return to Europe, that I kept my promise in writing all the particulars which might prove interesting to you.

## LETTER IX.

*Journey to Bluebergh.—Canal for a Communication between the Surinam and Suramacca,—Plantation on the latter River.—Land on the Banks of the River Surinam.—Method used in this Colony for the recovering exhausted Land.—Cultivation of Coffee—of Sugar—the Cocoa Tree.—Imitation of Chocolate made from other Kinds of Fruits.—Arrival at the Plantation Bluebergh.—Search for Mines.—Treatment of the Negroes.—Behaviour of a good Director.—Military Post Victoria.—Plantation l'Hermitage.—Visit to the Village of the Bush Negroes.—Description of them.—Invitation to this People for a Dance at l'Hermitage.—Method of dancing.—Musical Instruments.—Conclusion of the Ball.—Departure from l'Hermitage.—Return to Victoria and Bluebergh.—Plantation of Reancour.—A new Species of Coffee Tree indigenous to South America.—Return to Worksly Jacob.—Plantation of Aucka, where Peace was concluded with the Bush Negroes.—The Origin of those Negroes at Surinam.—Ravages committed by them in this Colony.—On the Security of this Country from these Negroes.—How to make the Indians more useful to the Colony.—The Arrawoukes Indians.—their Villages—Houses—Furniture.—Attachment to their Wives and Children.—An improved Indian House.—General Character of the Arrawoukes Nation.—Their good Disposition—Faults.—Capable of Civilization above other Indians.—The Village called Jews Savannah—Description of this Place—of the People.—Visit to two Indian Villages,—two Plantations, Toledo and la Recontre.—Great Hospitality of the Planters at Surinam.—Return to Paramaribo.*

MY DEAR SIR,

Paramaribo, May 8.

I HAVE had the pleasure of taking another journey, and that into the interior parts of the colony of Surinam. Mr. S. with whom I

made the tour to the Cottica creek, observed, that he never had been at Bluebergh, and therefore asked me whether I would make a party with him? The plan was soon arranged, and on the twenty-first of last month we set out in a very handsome barge. In rowing up the river Surinam, at the first plantation on our right we passed a canal which has been made for a communication between the river Surinam and that of Saramacca: on the banks of the latter are many new plantations established. I had been twice on this river, but as it was in the company of some gentlemen who are in the mercantile line, their business obliged them each time to return to Paramaribo in the course of two or three days. On the upper part of the river Saramacca, the settlements are plantations of wood, but towards the mouth of the river it appears that a good deal of rice and Indian corn is cultivated, which sell extremely well at Surinam. The canal which joins the two rivers, to save expense, has been cut into the Wanica creek, which proceeds from the Saramacca; but as this canal is cut in a zigzag manner between the boundaries of the plantations, the heavy rains often wash down quantities of the earth, particularly from the angular points: besides which, the tides are hindered thereby from passing freely and rapidly through the channel, in consequence of which, this earth is left to accumulate, and fill up the canal; wherefore at present the heavy laden boats, except at very high water, find a great difficulty in passing, and those who suffer most by the inconvenience are very anxious to have the canal altered, and made straight. But as for the completion of such a work many planters must send their negroes to labour in cutting the canal, the desired undertaking meets with great difficulty; besides, the owners of those plantations through which the straight line would lead, and whose fields are highly cultivated, will, of course, ask now a considerable indemnification for their land. I never could learn whether the land lying along the coast between the rivers Surinam and Saramacca

has been examined to see if it be good for the cultivation of cotton, as its situation might naturally lead one to expect : but it seems it has not. Now, if some persons were sent properly to investigate this part, and they should find it to possess all the qualities for the growth of excellent cotton, the project for a canal might be immediately carried into effect, and the land here only given to such persons as would contribute towards the execution of it ; which would favour also the communication between the colonies of Surinam and Berbice. At the end of the present canal, where it communicates with the Wanica creek, is a military post, and here is also a country inn, the only one in the colony ; this inn, however, is but seldom visited ; and as the landlord knows that it is only chance, or some particular accident, which brings a traveller to his house, he thinks himself entitled to charge most exorbitantly.

The next day, which was the twenty-second of April, we arrived at Worlsly Jacobs, where there is a quarry of stone belonging to government, and the only one that is worked in the colony : the stones are blown up with gunpowder by negroes, then loaded in carts drawn by oxen, and brought to the river, from whence they are conveyed to Paramaribo for laying the foundations of houses. The negroes employed here in the stone works do not labour harder than those men who follow a similar calling in Europe.

The director assured us government had no profit from this place ; but that it is kept on merely for the benefit of the public.

We continued our journey very easily. The tides in these rivers flow five hours and a half, and ebb six hours and a half. The spring tides are twice a month, at the new and full moon ; the tide runs at the rate of about seven miles an hour, and as we only pursued our course by it, our boatmen in these short stages were not in the least fatigued : they are eight stout negroes, who sing in chorus all the way. Our barge is the same that we had in our first excursion.

The borders of the river Surinam, which were cultivated much earlier than those of Commewyne, do not, however, appear quite so pleasant, as much of the land is become impoverished by the continual planting of many successive years, so that it now fails to produce good crops. The method here of strengthening and improving it is as follows. The land is encompassed with a dam to collect the rain water and keep it upon the field; upon which bushes soon begin to grow, and it returns to its former wilderness state: this ground is then called Cappewirry, to distinguish it from quite new land, which is termed Bere-bere; and in the course of ten years the land becomes as fertile as before. I could not help remarking, that it was a pity to turn cultivated land into a waste again, and thus to lose for ten years the benefit of it; besides, changing it to an artificial swamp, if I may be allowed the expression, must make the surrounding country very unhealthy; and when it is considered how many acres of ground are constantly reduced to cappewirry in all the different plantations, it must very much tend to prevent any further improvement in the salubrity of the air. I asked, therefore, whether it would not be much better to manure the ground with cattle, as I had seen done at Martinico and Barbadoes; for though it would occasion them more trouble and expense, yet the profit, by having the use of the land so much sooner, would fully recompense them. I was answered that cattle here was too scarce for this purpose; and that, as it is, when any oxen are killed by the tigers on the plantations, the owners of the plantations who live in Europe will not believe the fact, and therefore refuse to supply the loss by purchasing any more cattle.

Most of the plantations on the river Surinam produce coffee and sugar; and as you want not the description of the tree which furnishes your favourite dish, nor of the sugar cane, Dr. Fermair and Captain Stedman having both given already an account of

them, I shall only take upon myself to make a few observations not mentioned by those gentlemen. The coffee at Surinam, is suffered to grow in three stems from the root, and when one of them does not produce plenty of berries, it is cut away, and the best shoot in appearance nearest the root is allowed to grow in its room. The trees are not permitted to grow higher than about five feet, so that the negroes can very easily pluck the berries, for gathering which there are two seasons, the one in May or the beginning of June, and the other in October or the beginning of November.\* I have to observe, that they often pluck the berries of unequal ripeness, which must greatly injure the quality of the coffee. It is true, when the coffee is washed, the berries which float on the water are separated from the others ; but they are only those of the worst quality, or broken pieces, while the half ripe beans remain at the bottom with the best. Now in the description which travellers in Arabia give of the method of gathering coffee there, it is said that the tree is suffered to grow to its natural height, and the berries are gathered by shaking the tree and making them fall on mats placed for them. By this way the Arabians gather only the beans perfectly ripe at the time, and which must give the coffee a more delicate flavour. Happening to mention this circumstance to a director, he replied, that too much time would be lost in gathering all the berries from the trees by this method, and therefore the further preparation of the beans would be too much retarded. Not being a practical planter myself, I am not able to judge how far it might be

\* A tree will yield each time on an average from one pound to a pound and a half of coffee when pulped and perfectly dried. An acre of land planted with coffee, when favoured by the weather, becomes more profitable than when it is planted with sugar-canes ; but its crops are always very precarious, as the blossoms and even the berries are sometimes damaged by the heavy rains, which are much less injurious to sugar-canes ; wherefore a planter feels himself best secured in his revenue as soon he is able to cultivate them both.

done without suffering the inconvenience. It is certain that by plucking from the trees the negroes cannot pay the attention necessary to get the ripe ones only, as the berries are sometimes quite red on one side and in an unripe state on the other.

For all that you may have read of the fine appearance of a coffee plantation, the sight of it would far surpass your expectation ; nothing can exceed the beauty of the walks planted with coffee trees, from their pyramidical shape, and from their glossy dark green leaves shining with great brightness, amongst which are hanging the scarlet coloured berries.

A field planted with the sugar-cane, by its very vivid green colour presents a picture of the beautiful season of an European spring ; there is no vegetable, of which various kinds of animals are so fond as the sugar cane, and instinct leads them in general to the most nutritious and agreeable food. It is observed that the negroes themselves, in the time of making sugar, though they are obliged to work very hard both by day and night, grow fat by the nourishment of the juice which is then allowed them. Indeed many physicians have attributed the decrease, and almost entire disappearance of the leprosy in Europe, to the great general use of sugar.\*

The sugar mills here exceed in importance by far, those which I have seen in Barbadoes, as they have the advantage of being worked by water ; but they only work in spring tides, and during the continuance of one spring tide they will make fifty hogsheads,

\* At Surinam, in the fertile soil, the sugar-cane can be cut, or, as it is called croot, for five or six years from the same root, before it is necessary to plant again ; which is done by first preparing the land with a hoe, and then taking the top-joints of canes and placing them longitudinally, about two or three inches deep in the ground, during the rainy season ; they will shoot and come to perfection in the course of fifteen months, and are then about 7 or 8 feet high and from one to two inches in diameter ; the principal care required, is cutting off the withered leaves, and plucking out the surrounding weeds, till the cane is come to its maturity, when it changes its bright green colour into a light yellow.

each weighing twelve hundred pounds of sugar ; such a mill with the boiling house, coppers, and machinery, is estimated at from seventy to eighty thousand Dutch florins : but mills of so great an expense, are only built on plantations of two thousand, or two thousand five hundred acres, of which four hundred are only cultivated at once, three hundred planted with sugar canes, and one hundred allotted to the maintenance of the negroes, who cultivate thereon bananas, yams, &c. The whole population of negroes on such a plantation consists of about three hundred.

There are also several cacao plantations. The trees are left to grow to their natural height, which is about that of a cherry tree ; their leaves resemble those of the broad-leaved laurel, and are of a dark green colour ; the fruit in shape resembles a lemon, but is rather more oval ; it is at first green, and when ripe, yellow. It is said that there are some trees which produce above two hundred, each containing about twenty beans or nuts. The fruit not only proceeds from the branches, but even from the stem ; and though there is always ripe and unripe fruit, it is only gathered twice a year. The chocolate is here in general of an inferior quality, known by its dark brown colour, and rough taste ; but the superiority of the cocoa depends principally on the soil where the trees are planted. Having read some time since, that the cocoa nut when prepared in the same way as the cacao, made a fine chocolate, I had it done by my own order, and under my own inspection, by a person who well understands it ; but the beverage was very indifferent, and nothing equal to the real chocolate.

We were now far advanced on our journey when the tide turned ;\* on which Mr. S. told the rowers that this was quite unexpected to him, as he had never been here before, nor had he any acquaintance where we could stay the night ; and as the plantation of Bluebergh was not far off, he hoped they would not be discouraged, or feel any unwillingness in rowing a short distance

\* A circumstance which happens here during the floods of the rainy season.

against the stream, and he would give them a dance when they arrived at Bluebergh. The rowing against tide or stream never made any difference when Capt. Stedman was at Surinan; but of late the planters, from motives of humanity, have discontinued this practice, and we should not have required it, but have been provided with a letter to enable us to procure a habitation for the night, had it occurred to Mr. S. that the tides would fail us here. Our negroes gave no answer, but their eye-brows were knit; their foreheads became very much wrinkled; and they looked at each other with very expressive countenances. Mr. S. was engaged in conversation with a director who was accompanying us, but I could not help observing the negroes, in whose humour a great alteration had evidently taken place. After rowing about ten minutes in the most profound silence, they began a song, which was not in the Surinam negro language, but in their own native African tongue, which of course was understood by none in the barge but themselves. The tune was harsh and the words short, as if they were oppressed by the lips. I looked attentively towards them, with a view of reading in their countenances the meaning of the song, not without some feelings of apprehension, as evening was fast approaching, and we were in a part of the country where the dwelling houses of the plantations were very thinly scattered, and the banks of the river were covered with forests, which, though appropriated to various plantations, still remained in all their native wildness; added to which, we were at no great distance from the habitations of the bush-negroes, a circumstance which appeared peculiarly important to me at the moment, when I recollected the dreadful scenes that had taken place when these negroes first rose upon their masters. But their song was soon finished, and we shortly after arrived at Bluebergh, where Mr. S. kept his word with them, and gave them a dance; and they became perfectly happy. Since my return to Paramaribo, I have been assured that the negroes here have obtained, at several times,

information of the revolt at St. Domingo from those who have gone as servants with their masters to Europe, where they learn all that has passed, and relate it again when they return to the colonies. But it seems the negroes at Surinam have not had any such accounts of late, for the revived name of Hayti, by which St. Domingo is called at present, is not known here amongst them.

The plantation of Bluebergh, or as it is also called Bergendaal, is reckoned to lie above one hundred miles from Paramaribo, which distance is occasioned by the winding course of the river ; on the western banks is situated the Blue Mountain, which is said to be three hundred feet high, and on its summit is a very fine prospect, commanding all the surrounding country. At a great distance there is a chain of higher mountains running from east to west, and far beyond appear a number of still loftier heights, towering to the clouds in the direction of Peru.

It is in this part of the colony where the researches have been made for mines. Some samples of ore, which were reported to have been found in 1721, in the range of mountains situated on the upper part of the river Essequibo, induced some speculators to propose to the society of Surinam, in 1742, a trial to discover whether these mountains contained any considerable quantity of metals, and of what kind. They accordingly began their researches at the Bluebergh, and at the post Victoria ; but the result of their labour was that they found a good earth to make porcelain ; some iron and lead, and a few samples of silver and gold, but not sufficient to give any hopes of an adequate return and profit ; for which reason the undertaking was entirely abandoned in the course of six years, with which the inhabitants of Surinam were well contented, as they were sensible that the growth of sugar, coffee, and cotton was more substantially beneficial to the colony, than the fullest discovery of silver and gold mines.

The mansion at Bluebergh is accounted one of the finest country houses in the colony ; its situation is very pleasant ; before it is the river Surinam, forming a capacious and circular bason ; and it stands on a rising ground at the foot of the Blue Mountain ; the other parts of the scenery consist of a large plain, in which at a short distance are situated the negroes' houses, which are well built, and in so great a number as to form a considerable village.

The negroes on this plantation having behaved remarkably well, and particularly by repulsing several times the attacks of the Bush negroes, have obtained many indulgences. They breed a considerable quantity of poultry, and plant a great number of vegetables, not only for their own use, but for sale at Paramaribo, where they dispose of them to advantage. They are also supplied with clothing and other necessaries ; nevertheless they are kept under proper discipline, and when they are guilty of a fault, the director consults the two black overseers, called in this colony, Bastians, who are chosen from among the best behaved negroes ; and the punishment which they conceive the culprit to have deserved, is never increased by the director. This sentence is carried into execution in the presence of the other negroes, and they have never any reason of complaining of too much severity.

This woody plantation is very considerable, consisting of near eight thousand acres of ground ; there are several gentlemen who have it in common, and as they are men of fortune, and of liberal understandings, they are particularly careful to procure a good director, who is allowed a considerable salary : his employers know that upon his conduct they have to rely, in preventing their negroes from joining the Bush negroes, who live in the vicinity ; and indeed the present director, Mr. B. is a very intelligent man, and is much beloved by the negroes. He told us that he was very sorry he could not go with us into the woods, to shew us the negroes at work, as the ground was at present overflowed with water.

Of the various sorts of timber produced in the forests of Surinam, you are already informed by Dr. Fermair ; but during my stay here, I am making a collection of specimens of the different kinds, which I hope to have the pleasure of presenting to you, on my return to Europe.

April 25.—We proceeded to Victoria, where an officer is stationed with a picket of black soldiers to guard the frontiers of this part of the cultivated land against the bush negroes. At Victoria there is a new director, who being but very little acquainted with the place, could give us no information.

The next morning we rowed up the river Surinam to the Sara creek, and visited l'Hermitage, a small woody plantation, the director of which is a commissary of the government, residing with the bush negroes, who are at present in amity with the people of the colony. As we were going to one of their villages, we fired some guns by way of announcing our approach, as we were informed that these negroes do not like to be visited by strangers without being previously advertised in this manner of their coming. At our entrance into the place, we found several of their chiefs in a high dispute among themselves ; one in particular, who had on a red worsted cap, and an old rusty sabre in his hand, seemed to be in a very great passion ; but when we advanced nearer, their contention ceased, and we were well received by them. To conciliate their good esteem we bought several articles of them, as carved calabasses, trinkets, &c. These negroes are without any dress, like the common slaves, though they have both shirts and trowsers, which are only worn by them when they make a journey to Paramaribo. Their huts have a very poor appearance, consisting of a few poles driven into the ground, and united by palisades cut from a dwarf palm, which is called here the *palisade tree* ; the roof being covered with the leaves of the Indian corn. In the middle of the village was a larger hut, which was entirely shut up, and the

inside of which they would not shew us, alleging that it was used for religious services; but they may perhaps make use of it as a place for keeping a quantity of muskets and gunpowder. At this hut they have also their palavers or meetings. There is nothing round this village indicating any cultivation; however, it is known that they do plant Indian corn and sugar canes. These sugar canes are in general of a much larger size than those growing at the plantations, but the juice is of an inferior quality, owing to the nature of the ground on which it grows. These people live principally by hunting, and appear to be in good condition; they are tall and stout made, and some of their women have really fine features. That we might see more of their customs, we asked them to come in the evening to l'Hermitage to have a dance, which they readily accepted; but we took care not to invite too many, as we expected more from the neighbouring villages. When they came, according to the invitation, there was no alteration in the dress of the men, they appeared in the same costume we had seen them in the woods; but the women appeared in their full dress, having on short calico petticoats, white turbans round their heads, and strings of coral round the neck and arms. The dance had scarcely begun when another dispute arose, for the bush negroes found themselves offended by dancing in company with their brethren of the plantations, who, on their side, observed, that as their master gave the dance, they thought themselves entitled to the privilege of sharing in it. To put an end to this altercation, we told the plantation negroes that they might choose another place to dance in, and they should have their due proportion of the fare that was provided for the general entertainment.

The dances of the bush negroes are much the same with those of the plantation negroes, except that they are more licentious. Among their instruments, which consist mostly in different sorts of drums, there was one in particular which I had not seen before: it was

made of different sounding woods cut into several sticks of various sizes, and laid upon two pieces of wood : this instrument is played with two little sticks, and was probably the original which gave rise to the dulcimer, as this again did to the more improved harpsichord. Our visitors became at last very noisy and troublesome; they made so free with the rum which we had provided for them, as soon to exhaust it entirely, and when they found there was no fresh supply, they took their leave. The parties were from two different villages, and the second was under the government of a female negro who goes by the name of Belle Mama, and it ought to be observed that her subjects were by far the most decent in their behaviour.

L'Hermitage was the greatest distance intended for our journey : I could not help looking towards those immense forests where so few travellers of civilized nations have yet penetrated ; what a treasure must there be hidden in all the varieties of the creation ! The principal articles now cultivated in the colonies of America, sugar, coffee, and cotton, were known before the discovery of the New World ; and if we have not as many valuable productions peculiar to America, as to Asia, it is only because Asia has been longer inhabited by enlightened nations, to whom the Peruvians and Mexicans could not be compared ; nor can we expect that we shall make any great discoveries in this part of the world so long as the planters think themselves only strangers here, intending as soon as they have made a fortune, to emigrate again. But since the cacao and the indigo, together with so many valuable balms and most powerful medicines, have already been discovered in these regions, what may not be expected of posterity, when men of various talents and of active minds shall have completely penetrated into these immense forests, hitherto unexplored !

We left l'Hermitage April 28th, and as we had to pass by the village where the Belle Mama resided, we paid her a visit, and com-

plimented her upon the superior order in which she keeps her vassals. I had forgot to mention above, that this Belle Mama is far advanced in age.

We dined at Victoria and slept at Bluebergh. The fine scenery around us, together with the apparent happiness of the negroes, and the pleasant society of Mr. B. the director, contributed to make our abode most agreeable. After staying here two days longer Mr. B. accompanied us part of our way home.

April 30th.—In the afternoon we visited Reancour, which plantation is under the inspection of Mr. B——m. We saw here a distinct species of the coffee tree, indigenous to South America. The present tree was but newly planted, and about the size of a peach tree. It is said that the fruit hangs in clusters like grapes; but the shape of the berry resembles that of the Arabian coffee tree, and is of the same taste, though a little more bitter, and when both are mixed together are said to furnish a most excellent beverage. A promise has been made me of a branch of this tree when in blossom, and another when the fruit is ripe. Perhaps by ingrafting a branch of the Mocha coffee on this tree, a coffee of a superior quality might be obtained.

May 1, we spent at Worsly Jacobs, the director being a particular acquaintance of Mr. S. and he also accompanied us in a part of our journey home.

The following day we landed at Aucka, a considerable plantation, where in 1761 peace was concluded with a large party of the bush negroes who live in the vicinity of the river Surinam. Ever since that time these people have been distinguished by the name of the Aucka negroes. The origin of the bush negroes at Surinam was in the year 1674, when by the treaty of Westminster, the Dutch obtained possession of Surinam. Whilst the English planters were preparing to leave their estates, a party of the negroes took the opportunity of deserting into the woods, and these fugitives were

afterwards joined by other runaway negroes ; and in 1712, when the French admiral attacked this colony, the Dutch governor was afraid that the negroes would be carried off, and therefore he advised the planters to send them into the interior parts of the colony ; but when the danger was over those negroes refused to return to their plantations ; and this was what might have been expected. They now became a most formidable enemy to the colony, and animated by their example, another alarming revolt broke out at the Cottica river in 1772, which spread devastation to the most fertile parts of the colony, and of which Capt. Stedman has given a full description in his Narrative of the Campaign in Surinam.

By the peace of Aucka, which the Dutch concluded with the bush negroes, the two most important articles are, the furnishing them with fire arms, and allowing them to come to Paramaribo to traffick. But with regard to the fire arms, it may be remarked, as they are of a very inferior kind, they soon get out of repair, to which, indeed, the great humidity of the air in the forests of Surinam materially contributes. The second article, which allows them to come to Paramaribo whenever they choose, is worthy of serious consideration. They allege that this is done only for the purposes of trading ; but they have, in fact, a near connection with the colonial negroes, and it is said that a secret order actually exists among the negroes here in the colonies. This institution they brought first from Africa, and the principal rules of it are said to consist in engaging themselves by a most solemn oath never to divulge their mysterious transactions ; to observe the strictest obedience to the superiors whom they have elected among themselves ; and to collect money for their common purposes. I have been assured by persons who are in great intimacy with female mulattoes, and who thus know more of this secret business, that there are numbers of negroes in Surinam who are embodied into the order. They give to the superiors whom they have chosen, fictitious names, in order to avoid discovery of their transactions. It appears also, that they collect money as often as they find

an opportunity ; and it is added, that though the different casts of the negroes hold different meetings of their secret order, yet the principal rules are much the same in all. They exclude women from their society, but it is said, that even these have established among themselves an order very much on the same plan. Now the bush negroes have it in their power, by their frequent journeys to Paramaribo, constantly to keep up a secret correspondence and connection with all the other negroes in the colonies.

The number at present of the bush negroes is very differently stated ; for in fact, it is impossible to make a just calculation of them, as they often separate into distinct divisions, and form new villages in different parts of the forests. But what ever may be their numbers, they must in time become the most dangerous enemies to Surinam, especially if ever they should make a common cause with the plantation negroes for the purpose of attacking the colony. But the inhabitants of Surinam seem perfectly careless and indifferent to their situation in this respect, and like those who cultivate the fertile crust upon a volcanic soil, they are not troubled with the thoughts of the danger till they are suddenly alarmed by the dreadful eruption.

This insensibility in the people of Surinam is certainly unpardonable, as they have in reality the means of preventing the danger, by entering into a new treaty with the bush negroes, offering to furnish them with more articles of provisions than they do at present, with an express condition that they should keep entirely clear from the cultivated parts of the colony ; and declaring, that as they were now become a separate and free nation, they should be treated as such, and that the commerce with them must be carried on as is customary with their parent states in Africa. There might also be a place in the forest determined on, where they could meet at a certain time of the year, and receive those articles which had been promised them, and where they likewise could bring what articles they might have for sale ; and where the merchants

of the colony might come to barter with them; but for all other kind of business with the colony, they should send a commissary, or consul, appointed to reside at Paramaribo; and if they ventured to come themselves, without a particular order from the government, they should be looked upon as spies, and treated as such. Should they not like to entirely break the connection with the white people, there is then another proposal for them, as they still preserve the customs of, and shew an attachment to, their native country, if they liked to return there again, they should be sent over to Africa; and in order to give them a fair trial, they might choose some among themselves to be sent over first and inspect the country, and if they approved, the rest could embark to follow them. The negroes at Sierra Leone are described to be very happy, and some of the bush negroes might be sent there also, and if they preferred that place, they could be conveyed thither, and a settlement provided for them; there would then be no suspicion between them and the white people, therefore a free and liberal commerce might be carried on between them. Supposing that all did not like to return to Africa, yet the colony would gain much, if the number of bush negroes was considerably diminished, and the rest seeing themselves greatly weakened by the emigrating party, might at last wish to follow them.

There is another circumstance, which might be turned to advantage in saving the colony against the attacks of the rebel negroes. The native Indians who have frequently assisted the colonies of Surinam, and Berbice, when requested by the inhabitants in their war with the bush negroes, have an high opinion of the talents of the Europeans, never take the part of the colonial negroes, and thoroughly hate the bush negroes; but their villages have of late very much diminished in number, in the vicinity of the cultivated part of Surinam, which has been occasioned by several contagious diseases. Now if some gentlemen were appointed, to travel

into the more interior parts of the country, taking with them those articles which are most esteemed by the Indians, though of little value in themselves; and when they arrived at the villages of the Arrawoukes, who are the most useful among the Indian tribes, or at those of other tribes who shew a good disposition, to offer them presents, and assure them that these should be continued yearly, if they would come and settle in the vicinity of the cultivated part of the colony, or if they would reside there at least the greatest part of the year, and keep themselves always in readiness to assist the colonies, when obliged to take up arms against the rebellious negroes. The Indians, particularly when they are assisted by the Europeans, become very useful against the bush negroes, as they carry on the war in the same manner as the negroes do, and have a perfect knowledge of the different situations of the country, and the recesses of the woods. These valuable allies, would be acquired at a very trifling expense to the colony. Though I have often seen the Indians when they came to Paramaribo, yet I have only once been at an Indian village. We were now arrived at a creek, where there were several settlements of Indians; in rowing up the rivulet, which was greatly shaded by large over hanging branches of trees, we soon arrived at the village. An Indian house is soon built; it consists of four forked poles driven into the ground, perpendicularly, forming a large square, and framed by four poles of a less thickness, lying horizontally on the erect ones; on these are placed other slanting poles, which form the roof, and are generally covered with *trury leaves*,\* which are sometimes more than twenty feet long and about six or eight inches wide, of a strong texture, and will last without rotting a long time. The furniture of these houses is agreeable to the simplicity of the building; large pots of earth, which are made by the women, in which they keep their drink for coolness; some other pots for cookery; a few

\* See the Appendix.

calabasses to serve as plates: a packall, or a neat basket made with a cover, plaited so tight that no rain can penetrate it; and a hammock which serves them at day for a sofa, and at night for a bed. Those who carry on a trade with the Europeans, have in general a small looking glass added to their furniture.

There were many Indians in this village; but they had just returned from the woods, and were resting on their hammocks. A little Indian dog which I saw here, and very much resembled an Italian greyhound, I wished to purchase, and the owner asked me ten guilders; but when I was going to pay him the money, his wife refused to deliver up the dog, and the Indian receded from the bargain. I had another time an opportunity of witnessing the attachment of the Indians to their wives and children; although this virtue has been denied them by many authors. On my first journey to the river Saramacca, which was with Mr. I. G. we dined with Mr. Ruekert, who has a plantation on this river; an Indian family arrived there in a boat, and the Indian offered us several parrots to sell, when I asked him if he had not any other animals to dispose of: another Indian who lives on the plantation, and who acts here as a huntsman, became our interpreter, and said there was a small sapajou\* in the boat with the Indian family; but that they would not sell it. Being a wet day the boat was covered with large banana leaves, under which the family had sheltered themselves; but as I wished to know if this was a new species, I requested Mr. Ruekert, who well knew the Indian, to make him understand that I did not want to have the animal, but only wished to see it; but this the man repeatedly refused. At last, after much importunity on the part of Mr. R. he went to the boat, and sometime after returned, leading by the hand his daughter, who might be about fourteen years of age. Her head was held down, the little sapajou being about her neck, and by the other hand she was led by her

\* A kind of monkey. Vid. Appendix.

mother. The Indian gave us to understand that this little sapajou was brought up by his wife and daughter, who always took it with them, and it was remarkably attached to them, therefore he would not sell it at any price. During this discourse, the daughter seemed much agitated, and I was about to bid the interpreter tell her, that, I was determined to take the little sapajou, yet that I left it to her choice if she would likewise go with me ; but thinking that she had already suffered too much, and to which, most likely, she was very little accustomed, I made a sign to the father to take away the sapajou again, and then for the first time the Indian lass held her head up, and recompensed me by an expression of grateful satisfaction, beaming from a pair of very fine eyes.

We went to a second Indian village, which was situated on a rising spot of ground ; but the most remarkable object we saw there was an improved method of building, and perhaps it was the best Indian house in the whole colony of Surinam. It was built on a much larger scale than any of the other Indian habitations ; each side was formed of the palisade-tree, and the house was a considerable height, and had a loft, which is quite unusual in other Indian houses, to which led a ladder, made like those used in Europe, and in going up we found several large mats, which were plaited in the same manner as the packall baskets, and many Indian water jugs much neater made than any we had seen before. We were now desirous of becoming acquainted with the industrious owner of this place, and found him to be one of the Indian chiefs, or, as they are styled here, captains, who had by the assistance of the Indians of the village built this house. He knew the Dutch language, having lived many years with a Dutch planter at Berbice ; but disagreeing with him at last, the Indian preferred returning to the woods of Guiana again, and to his own native tribe. Yet he was not unmindful of the improvements he had learnt, as that Indian was of whom the Abbé Raynal has given an account.

Do not think that I favour the Indians ; for not only Mr S—hy—s, but also Mr. B—gh—en and Mr. S—go ; the two directors from Blueberg, and Worlsly Jacobs, who were in our company, were highly pleased with the improvements which they saw here, and called it an Indian house of two stories high. Besides, as this village is so near the Jews' Savannah, lying upon the next creek to it, it can be very easily visited by any Europeans residing at Paramaribo, and they may find, that, instead of exaggerating, I have spoken less favourably of this house than it really merits, when compared with the other buildings which the Indians erect in this country.

The Indians who are mentioned in this letter all belong to the Arrawoukes nation, who are in every respect the best among the different tribes that have settled in this part of Guiana. The Arrawoukes were never known to be guilty of the horrid custom of killing their prisoners and devouring them, as is related of the Caribs, with whom they were often in hostilities ; and gentlemen who have had the best opportunities of getting information of the disposition and habits of these people, have assured me that they are not addicted to a crime which the Abbé Raynal has charged upon all the Indian nations, without any exception ; the Arrawoukes cannot, without injustice, even be suspected of this, as they are far from a state of brutal savageness, and still further from a degenerated stage of civilization ; they therefore are not so abominable as to be *addicted to the most disgusting of all vices.*

The greatest fault of the Arrawoukes seems to be an inordinate fondness for strong liquors, though they generally drink water, and use spirits only at public festivals ; but when they come to Paramaribo, the greatest part of what they sell is exchanged for rum, in which they then indulge themselves, so far as to become completely intoxicated ; but even then it happens that some among them are quite sober, and take charge of their inebriated brethren ; so that it seems either there are some

of them who never fall into this excess, or that they get drunk by turns. Notwithstanding the too great inclination for strong liquors, which the Arrawoukes have in common with all the other Indian nations, yet in other respects the comparison is much in their favour, as they possess more talents, and it is to be wished that more pains were taken for their civilization. The Moravians have lately engaged in this good work ; but as I have not yet visited those parts of the country where these missionaries labour, I can give you no further account of them or their success ; bur I intend to visit them as soon as I can get an opportunity.

Many inhabitants in this colony are of opinion, that the Indians in general do not evince sufficient genius and talents to warrant any reasonable expectation of their improvement ; but the history of the world abounds with ample proofs that among all nations the improvement of the mind has gone on slowly, and by degrees. If we confine our views to Europe only, how long were the Greeks and Romans civilized before any of the other nations, emerge from a condition very little better than that of the present Indians in America. These Indians discover a considerable activity in their huntings, and they have given many proofs of surprising sagacity to those Europeans who have employed them in the war against the bush negroes ; and they shew their mechanical genius in the construction of many useful articles, without the assistance of tools made of metal. Their women in the working of cotton hammocks, display equal skill, industry, and ingenuity ; they take up every thread as is done in darning, and the hammocks which they make are really handsome ; there is therefore no want of capacity in these people ; but if there be any fault it will be upon their instructor, who ought not only to possess sound judgment, in choosing what is most useful for the Indians to learn, but also particular talents in teaching them ; besides which he must be indued with uninterrupted perseverance, and a generous disinterestedness. These are rare qualities to be

found united in one person, and where it is the case, will such a man choose to go to the Indians and live with them in the wild forests of Guiana?—The Portuguese and Spanish missionaries, it is reported, have already met in some parts of South America, with happy success in their endeavours to instruct the Indians, and have brought them, by their indefatigable zeal, to an industrious way of living, so as not only to be useful to themselves, but of the greatest service to the European settlers.

We rowed from this Indian village to the Jews' Savanna, which is reckoned from Paramariho about sixty miles, though the distance by land is supposed to be only forty; but there is no carriage roads direct from the town hither. This place is considered as the most populous village in the colony: the Jews have here a large synagogue, besides their principal schools and a kind of college. The Dutch government wishing to invite the rich Portuguese Jews, and particularly those who had before settled in the Brazils, to fix their residence at Surinam, granted them all the liberty and rights of the other nations here. When they first settled in Surinam they engaged much in agriculture, but they have since found that their talent for speculation succeeds better in the various branches of commerce. Of this subject, however, I shall speak in another place.

After the two directors had departed, Mr. S. and I went to two other Indian villages, the way to which led over an eminence covered with a multitude of different species of shrubs: but when we came to the first village, there was not a living creature to be found in it. Our guide then brought us to another, which consisted only of a few huts, but we saw no male Indians here; some old women were employed in cookery, while two young females were occupied in making a new quejou, the only dress they wear, consisting of a blue riband which forms a sash, to which an apron is attached made of cotton, about eight inches long and six inches

wide ; the youngest of these Indians was putting upon a string different coloured beads, and gave them to the eldest as an ornament for the apron, which was so very small that it might well bear the celebrated device of the garter, "*Honi soit qui mal y pense!*" The good old matrons seemed greatly alarmed at our approach, probably, more particularly, as their consorts were absent ; therefore, to quiet their apprehensions, we immediately took our leave of them.

The military road which separates the cultivated part of the colony from the forests, and has regular stations or posts at certain distances, as guards against the bush negroes, leads by the Jews' Savannah, which is protected by one of the posts, this place having formerly suffered much by the incursions of these negroes, as well as many other plantations of the Jews, to whom the rebellious negroes bore a particular hatred, and exercised towards them great cruelty. Here is likewise a fine well of clear water, which has a slight mineral taste. The Jews' Savannah is the first considerable rising ground in going up the river from Paramaribo, and consists of a chain of high sand hills, and the situation of the village is considered very healthy. We went from hence in the evening to the Plantation de Scanzo.

May 3.—We visited Toledo, a sugar plantation, the mill of which, it is said, when worked by four mules, makes as much sugar as others will do that require eight mules. It was mortifying to us not to find Mr. O. the owner of this plantation, at home ; and we formed the greater opinion of him from the friendly reception which we experienced on the part of his domestics, whose conduct, in general, may be considered as the rule by which to judge of the manners of the master. The mill was not quite finished, but we were informed, that the machinery being made lighter without diminishing the force of the rollers, gave rise to the expectation of great saving of expense in the keep, &c. of mules. This improvement must

be considered as of great importance, particularly to those who begin sugar plantations, and who do not wish to go to the expense of building water mills.

The next morning we stopped at la Recontre, as I had the pleasure of knowing the owner, who resides in Europe; he had sent his son out to the colony, to make some useful regulations; he was a youth of a most amiable disposition, but not being properly acquainted with the nature of the climate, and unwilling to alter his method of living, soon fell a sacrifice, and died after a short illness.

At noon this day we completed our voyage, and arrived at Paramaribo. It is but common justice to speak highly of the great hospitality which we experienced every where during the whole of our journey. Although it cannot interest you to be informed of all the different delicacies with which we were treated during our journey, yet as some of these were dishes which never enter into an European bill-of-fare, I shall mention them without any further apology.

A joint of boiled or roasted young sea cow tastes well, though it is difficult to describe by any object of resemblance with which you are acquainted; it is sufficient to say that it is neither fish nor flesh.

The tapir,\* which is the largest animal of game in this country, has, when young, a flavour somewhat like veal and pork.

The *conny conny*,\* or the rabbit, and the paca, which is the hare of Surinam, particularly the latter, are of a most excellent taste.

A fricasee, or a pie made of an eguanna, is very delicate. This is a lizard about three feet long: its colour is a beautiful light green: it does not live, like the other lizards, upon insects, but solely upon flowers and the blossoms of trees; it is a very clean

\* See Appendix:

animal, and those who are fond of turtle can have no dislike to this dish. The eggs of the eguanna are superior to those of a fowl or a turtle.

The palmworrow is a caterpillar about a finger's length, and of the same thickness; it lives on the sap of the palm tree; and when roasted appears in form like a small sausage. The taste is like that of delicate marrow, and without any flavour of so many different sorts of spices, which Captain Stedman has ascribed to it; and, therefore, I suppose that either those which he eat were of another species, or else that the spices were put into them, which I desired not to be done with mine, as I wished to have the real taste of them, knowing that the people here season all their dishes very high.

A broth made of parrots is also esteemed by many, but the flesh is used no other way, being too coarse.

But it must be observed, that all these dishes are rather served on the table for the curiosity of foreigners; there is, besides, plenty of venison and other kinds of game.

Some of the European settlers here, who live much in the woods by hunting, will eat, as the Indians and negroes do, monkeys and tigers; but the first has much the appearance of a child, particularly when dressed for a meal, and its great affinity to the human species in all its organization, excites the disgusting idea that there must be some similitude in the taste of the meat, which of course creates a natural aversion to it.

The most general dishes, on the plantations as well as in the town, consist of domestic animals. The beef is not so good as in Europe; but this cannot be entirely attributed to the climate, as we had some very good upon one of the plantations. Sheep are not bred here, but those who are fond of mutton buy them, as opportunities occur, from the captains of vessels. Goat's meat is here very good and plentiful, since they never have less than three

or four kids at a time. The poultry is most excellent, particularly the Muscovy ducks, the turkies, and capons. The rivers abound with fine fish, of which the planters can be supplied when they please. There are also plenty of land turtles and crabs, and in some seasons sea turtles are brought to Paramaribo. The oysters which fasten themselves upon the branches of the mangrove tree at high water, and remain there when it falls, are small, and not of so good a taste as those of Europe. The wines most used here are Claret and Madeira. The dessert consists of a variety of the finest fruits, which I shall not particularize in this place, as you have already the description of them given by Fermin and Capt. Stedman. But one remark is necessary: it has often been pretended that the pine apples which are raised in Europe in hot-houses, are better than in the country of which they are natives: this is correct only in some instances, and depends entirely on the rearing them, to which the European gardeners are very attentive, while in Surinam the pines are in general planted as quick-set hedges, with little regard whether the soil is proper for them or not; and they are often gathered without considering whether they are in a state of perfection or not. There are three different species of the pine apple; one is very oval, about twelve inches in height, and of a yellow colour, but its taste is extremely watery: a smaller sort of the same colour is of a better taste: but the third, which is of a reddish colour, is of the finest flavour of all, and most likely exceeds the best ever grown in Europe.

The sapadilla apple is also reckoned one of the most delicious tropical fruits, yet I thought the sweetness rather insipid; but not long ago I received some from a gentleman's garden, who is distinguished here by the excellence of his fruit. These sapadillas were far superior to any that I had before tasted: this sort was not only much larger, but also different in colour:—the others are of

a yellow substance, while these are reddish ; their taste can be only compared to the finest sort of peaches. They have only one fault, which is, that they cannot be exported, otherwise I should send you a quantity of them, that you might be able to judge whether I have spoken too much in their praise.

## LETTER X.

*On the Soil of Surinam.—A new Attempt to cultivate the Land by European Labourers.—The Method of cultivating it by Negroes.—How to render the Labour to them more easy.—Regulations for their Work—Meals—and Rest.—Their Provisions at the Plantations.—Attention paid them when sick.—Their Dress, &c.—Dances allowed them.—Correction.—Newly arrived Negroes trained to arms.—Reflection on the severe Execution of the Negroes.—The increase of Creoles or Natives at Surinam.—Preference given them to the Negroes brought from Africa, and Encouragement to those who bring up Children.—Care of pregnant Negroes, and of both Sexes when old.—Happiness of the Negroes depends on the Master's temper.—Proposal for increasing it.*

MY DEAR SIR,

Paramaribo, May 15.

IN the letter which I wrote to you on my journey to Blueberg, I mentioned that the sugar canes which the planters cultivate are not of so large a size as those cultivated by the bush negroes, but that they yield a better juice. This difference is owing to the land of Surinam, which consists chiefly in a rich black garden soil: the new land is too moist for a good produce of sugar and coffee, therefore the planters for the first two years use it for provision ground, which the bush negroes never attend to, but plant their sugar in new ground. About eighty miles from the coast, in the more interior part of the colony, the land becomes higher, and is partly mixed with sand, interspersed with rich valleys; however, for want of population, these places are not yet cultivated.

An attempt was made by the Dutch government a few years ago, to cultivate the land by Europeans; and a number of German husbandmen, particularly from the Palatinate, were engaged, and sent to Surinam, where land was given them without any expense. But just as these industrious people had begun to labour, they fell a sacrifice to the climate; now if, instead of engaging them to cultivate the ground, the government had ordered some savannas to have been cleared by the negroes, then given this prepared land to the new European colonists, supplying them also with a stock of cattle to increase the breed, and thus to have afforded a supply to the colonists of butter and cheese, which at present are frequently scarce, then it is possible that these persons would have become inured to the climate, by employing them in this kind of farming, which is not so fatiguing as breaking up and first cultivating the land. Many of these persons might have rendered great service to the colony, and made fortunes for themselves, as butchers' meat and cheese sell very high in Surinam. From their increasing families good directors might also have been chosen; whilst at present the planters are often obliged, by having no other choice, to trust their estates to newly arrived adventurers, who frequently ruin the plantations, and treat the negroes most cruelly.

With respect to Europeans becoming fit to cultivate the land in the tropics, it is not to be expected till some generations shall have continued to reside in the colony, when their constitutions will be rendered fit for the management of the different branches of agriculture, as the negroes are at present. On the western coast of Africa, an easterly wind blows almost continually over an immense tract of land and burning deserts, and is consequently charged with a most scorching heat; wherefore the negroes who are brought from that coast, when they arrive in the colonies, and while at work, find a considerable relief from the refreshing sea breezes which prevail here. But agriculture in this part of the





H. C. Gray

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J. B. Byrnes

world, is not sufficiently assisted by the machines and tools of husbandry, which afford so much ease and convenience to labourers in modern times. Notwithstanding all that is said of the European climate, which makes its inhabitants strong and active; a native even of the most temperate part of that continent would think it a very great hardship, if he was obliged to cultivate as much ground, and in the same manner as the negroes here do, and without having any more tools than they have. The great labour of the negroes lies chiefly in tilling the land, which is here performed by hooks, while in several parts of the West Indies they have begun to make use of the plough; and this method has been found very profitable. There can be no better land for ploughing than at Surinam, since the ground is quite level, and without stones to impede the share; but unfortunately, the rich owners of estates, who might profit by the charge of introducing the plough, do not reside in the colony; if they did and tried the experiment, I am persuaded the rest of the planters would soon follow their example.

After the land is well prepared for cultivating cotton, the negro whose business it is to sow it, makes holes in the earth with his finger, and drops into each three or four seeds; but this operation is very injurious to the labourer, who is obliged to be continually stooping, and thus propels the blood to his head, which is also exposed to the full force of the ardent rays of the sun. Now I think this might be easily remedied. Let the negro have a stick of the thickness of his finger, on which shall be fastened a small round piece of board as a stop, to determine how deep the hole shall be made; then through a high hollow cane, put afterwards in the hole, let him drop the seeds without at all stooping, and cover over the hole with his foot.\* When I asked a director whether this mode was not practicable, he replied, that it would not be so well, to render every kind of labour too easy to the negroes, otherwise they might possibly lose their strength

\* For a further illustration, the reader is referred to the annexed plate.

for want of practice ; but this is certainly a most absurd notion, as there will always be in husbandry some task where the strength can be exercised ; and in fact this method of sowing does not require any strength at all, though it is the most painful employment performed by the negroes. The cacao and the indigo are likewise sown in the same manner, but the latter is not much cultivated here, and very fortunately, for in the preparation for bringing it to the required colour, as it is necessary to pass into a state of putrefaction, the negroes who are employed upon it frequently become ill, and sometimes die ; this business ought therefore to be exercised only by criminals, until a new method shall be discovered of extracting the colour without the necessity of suffering the plants to fall into a putrescent state, which endangers the health and lives of those concerned in the process. Now, if agricultural utensils and more cattle were introduced into this colony, the imported negroes would find themselves here, better off than in Africa, where their masters do not procure for them these advantages.

With regard to the hours of labour, the negroes at Surinam begin work at six o'clock in the morning, and continue till nine, when they are called off by the blowing of a shell, to breakfast, for which half an hour is allowed ; then the signal is again given with the shell, to return to work, which lasts till twelve, then they are called to dinner, to which an hour and half is allotted ; from half past one they work again till six in the evening ; so that out of twenty-four hours, they have fourteen at their own disposal, as well as Sundays, and some particular holidays. According to the laws of this country, a penalty of five hundred guilders is levied upon any one who compels his negroes to work on Sundays, and this regulation may naturally be expected to be attended to, since the fiscal gets half the fine : an exception is indeed made for the sugar estates, as the times when the canes are in perfection, and also the state of the spring tides, when the canes are to be pressed, must be

attended to; but then, the negroes have for every Sunday they work, another day allowed them in the week for their rest. During the gathering in of crops of sugar-canes, they often work at night; but then this is done regularly and by turn, and a sufficient time is allowed them for rest. It is said that they like it, as the nights are much cooler to work in. It is farther observed, that during the time of the sugar harvest, as it may be properly termed, the negroes are most cheerful; but of this I am not competent to judge: for though I have seen at several times the whole process of sugar making, yet I never have been present in the crop season, on the sugar estate.

As to the nourishment of the negroes on the plantations, by the law of this colony every individual is to receive every fortnight a basket full of taves roots, and two bunches of bananas: a bunch contains about fifty bananas, which are in the shape of a cucumber, near a foot long, and about as thick as a large European carrot; and these the negroes prepare for their meals various ways. These two articles the negro is entitled to demand, and if he does not receive his just portion, he may complain to the fiscal; in consequence of which the plantation is visited by two deputies, and if the complaint is found to be true, the manager of the estate is punished. In addition to these articles, the negroes receive in general other species of vegetables, as potatoes, cassavy, &c. and frequently a portion of salt fish, and salt meat: but the best proof that the owners and directors do not neglect the negroes with regard to food, is manifested in the vigorous appearance of the negroes in this colony, which greatly surpasses those I have seen in the West India islands; though it must be allowed that this country furnishes abundantly more means for the support of the negroes than those islands do, as the large rivers here abound in fish, which the negro with a hook can easily catch, and the master allows them a certain quantity of salt to cure them. The negroes are here very dexterous in making traps and snares to

catch game in the woods ; besides, on many plantations they rear poultry, pigs, &c. which they carry to market in town, and it is said that some who are good economists are worth money. Every considerate planter encourages his negroes, by allowing them a piece of ground ; and by this the negro becomes more attached to the plantation. Besides the articles of nourishment which are allotted them, they receive when sick, extra Gongotee, made of the flour of banana, rice, soup, broth, and whatever the surgeon thinks proper for them. There is on every estate a black surgeon to attend the sick in common cases, and there resides also on every principal plantation a white surgeon, who has under his care several of the neighbouring plantations, as it is obviously to the planter's interest to have his negroes in good health.

An European at his first arrival here is struck with the almost naked appearance of the negroes ; but he will soon be made acquainted that it is often their own choice. They receive, according to the laws of the colony, and I have myself seen given to them on the new-year's day, blue checked cotton for shirts, &c. a jacket for the rainy season, a hat, a knife, some tobacco-pipes, and a tinder box ; they have given them besides in all well regulated plantations, every three months, a quantity of salt meat, salt fish, and tobacco, for which last article they always evince a great inclination, and are particularly pleased when they receive it. But as to cloathing, they seem well enough disposed to decline it altogether, thinking it rather an incumbrance, and therefore they only use it when they go to town.

The female negroes receive on the plantation, a piece of blue or blue and white calico, to make their camisas, or shifts, which reach from the waist to the knees ; but what they like most is a belt, a necklace, and bracelets of different coloured glass beads.

On all well regulated plantations, there is given to the negroes a dance four times a year, when they have a certain quantity of

rum : and the females obtain as much molasses or syrup as they like to drink, mixed with water. A good and sensible master will never fail to allow these dances to his negroes, as they are very fond of the diversion, and it gives them fresh life and activity to go chearfully to work again ; at those plantations which I have visited, the negroes receive each of them a glass of rum, on their return in the evenings from their work.

In Europe it is generally admitted, that there are situations in which it is absolutely necessary to keep up a very strict discipline, particularly in the army and navy. Now it is evidently very difficult, for the few Europeans here, to keep the negroes in good order, considering how very numerous they are, and little civilized : for even the free negroes in the colony possess but little humanity ; as a proof of which a European master cannot punish his negro more than by threatening to sell him to a free negro ; and how far our method of reasoning respecting the negroes is often mistaken, has shewn itself in a new instance, which has happened since my arrival here.

A negro regiment of rangers was formerly chosen from the plantations, out of those who had given proofs all their lives of a good character, and they behaved with great fidelity and bravery when they became soldiers ; however, it was found latterly, that, for recruiting the black troops, planters sold very bad-tempered negroes, and gave them a good character, in order to obtain a better price for them ; it was therefore resolved to choose recruits from among the fresh imported negroes, as it was thought they would serve much more willingly, when they found that their destination had been to become slaves for the plantations, but that now they were liberated, and treated like European soldiers. But these negroes reasoned otherwise ; and not contented with what had been granted them in their situation, they wanted to be entirely independent ; and this they could have effected easily and without bloodshed, as the post of Orange,

where they were stationed, is on the frontiers of the woods of Guiana ; but they murdered first their officers in a most savage manner, robbed their quarters of every article, and then retreated into the forest, after which they plundered the neighbouring plantations, and kidnapped the slaves wherever an opportunity offered. The commander in chief of the troops at Surinam, Brigadier-General H—g—s himself pursued them with a detachment of regular troops in the woods with the greatest activity ; but the rebels always found means to avoid an action with him ; and after a very fatiguing march for many weeks he was obliged to return to Paramaribo, without even taking a single rebel. But what was so very difficult for the European troops to accomplish, a negro slave effected : he had been forcibly taken away by the rebels from one of the plantations, and having made him their slave, they treated him very severely, as he related. The poor fellow however wished much to return to his former master ; but was always strictly watched by the rebels ; at last a favourable opportunity occurred ; the deserters began to wish for some female companions, and this negro told them, he had a sister and two other female relations at the plantation where he had lived, who undoubtedly would be glad to live with them if they had an opportunity of joining them. The deserters at first were very suspicious of accepting the offer of the negro ; but at length they consented, and three of them resolved to go with him, assuring him at the same time that if he was guilty of falsehood or treachery towards them, he should lose his life. They went down the river in a boat, and had loaded muskets with them ; but in the evening, when they quitted the boat to proceed to the plantation, the negro observed to them, that they would be discovered if they carried arms with them, therefore they had better conceal their muskets in the bushes, till they returned with the women. After some expostulation, and again threatening the negro if he was not faithful to them, they followed his advice

and went to the plantation, where they found in a hut the three girls, to whom the negro contrived the means of giving secret information of his plan; they affected to agree to the proposal of accompanying him and his associates, rum was procured, and the deserters now thought themselves quite secure of their object; but when they became intoxicated, the negro went secretly to his former master, and told him how happy he was in being able to return to the plantation again, and that there were three of the deserters whom he could easily take; the negro's house was immediately ordered to be surrounded, and the prisoners were sent to Paramaribo. After a confinement which lasted several months, during which they confessed that they had been assisted by some of the tribes of the bush negroes, one of them died in the prison, and the other two were executed. I was not then in town, but have heard that they were punished with all the severity which the ancient laws of this colony had prescribed for the offence. The intention of this severity is undoubtedly to hold up a terrible example to other negroes; but as at the time of their execution, the culprits shew a great deal of contempt, and even brave the punishment that is inflicted upon them, it must have a contrary effect on the negroes who witness it. Perhaps a better impression might be made upon the living, if the delinquents were only led through the streets with the greatest solemnity, and then executed in the citadel, without exposing their obduracy in a public place, where the other negroes are liable to be powerfully affected by their behaviour, and stimulated to similar acts, out of motives of resentment. Now, if they had no opportunity of witnessing the bravado and contempt of death displayed by criminals, imagination would paint the execution much more forcibly to their minds, and the government again would be enabled to exercise more lenity in the mode of punishment for capital offences.

But let me change the subject to one more agreeable, and consider

the means of increasing the native negroes as cultivators of the colonial ground. The planters know, by experience, how much better a creole-negro is than one brought from the coast of Africa. The creole shews more attachment to his master, and he has learnt from his earliest days the custom of the country, and the true method of labouring in the fields. It is evidently then the planter's best interest, and most conducive to his present profit, to encourage matrimony among his negroes, to which, indeed, due attention is paid in the principal estates. A negro receives for each child, even if it is not an year old, the same provision as he does for himself, which, to a family of four or five children, is a very considerable advantage, especially as in this climate they are at no expense for cloathing. A female negro, when she becomes advanced in her pregnancy, has an indulgence in working less, and when she is delivered is allowed to stay a fortnight at home ; after which she presents her child to the master, and requests him to give it a name.

But those owners of plantations who reside in town have found that the female negroes, during their absence, often miscarry, either from the little care they take of themselves, or from their not having been sufficiently indulged in the article of labour ; on which account many of these planters, when their negroes become advanced in pregnancy, order them to town, and they remain under proper care, in their houses, till their delivery. By this means abortion has often been prevented ; and I have seen, on several plantations, a set of fine thriving negro children, who often come to the houses of their masters, and attach themselves to the family ; and frequent instances have occurred, when some of them have received their emancipation, by the death of their masters, that they have refused to accept it, expressing their desire to serve the son of their former master, knowing that they should experience from him the same kind treatment which they had received before. It is to be observed, however, that none of the planters here, by all their endeavours, have yet

been able to rear up as many negro children as the management of their plantations necessarily requires.

When the negroes on the plantation begin to be far advanced in age they are no longer obliged to work in the fields, but are employed in fishing, watching the ground, or in gardening, till they become still older, and then they are entirely at rest.

An aged negress is employed in feeding fowls, or serving in the kitchen ; and, if she is of a good disposition, the care of the creole-negro children is entrusted to her.

Both sexes, when they grow old, particularly when they have had many children, are highly respected by all the other negroes on the plantations, and are also esteemed by their masters. I have seen myself, on different plantations, some of these veteran negroes, who appear very contented and even cheerful. All these things being considered, I confess, that the result of my observations has greatly diminished the prejudice which I brought with me from Europe, in respect to the situation of the negroes in the colonies. It must, indeed, be acknowledged, that the fate of the negro depends entirely on the temper and disposition of the master ; for while I have found the negroes happy on some plantations, I have at times, in my rural walks, seen, and still heard more of, the severe correction of others. Though instances of such cruelties as Capt. Stedman has mentioned, and of which he has even given some drawings, are no longer known, yet in our times, when a great desire is shewn to see the laws of all the colonies amended, it were to be wished that a man of capacity and independence, like the late Mr. Howard, were engaged on a voyage to visit the principal settlements belonging to the different European nations, with a view of making the strictest investigation, what effect the different decrees had there when they were first introduced, what means have been employed to see them properly executed, and what, in the course of many years, may have been the consequence of them ; and at the same time, he should

learn from those planters whose estates were in the best order, and the negroes thereon well situated, of which he would find many among the different settlements, what means they have applied during their long practice to attain that perfection? Then, when this traveller returns to Europe, and delivers to the legislatures the collection of his enquiries, with his own remarks and observations regarding the local circumstances of those countries, we might expect to see a code of laws formed for the colonies, which would be of extensive benefit to them.

Mr. Howard's object in his travels, was to find, by his researches, a better method of treating prisoners, whether for debt or crimes; and estimable as his intention undoubtedly was in the pursuit of this plan, yet the extent of the benefit, and the immediate value of the service, which would be the consequence of such a scheme as is here suggested, would, I think, far exceed it; and the person who shall be found to carry it into effect, will become the benefactor of incalculable numbers of friendless negroes, suffering, in particular, by the severity of unfeeling overseers. At the same time, it should be observed, that such a plan might be entered upon, and even completed, without forming any resolutions that might endanger the fortune or the personal safety of the many land proprietors in the colonies.

## LETTER XI.

*Custom of the Inhabitants of Paramaribo.—Their general Occupations.—People of Colour.—Free Negroes.—The Slaves.—Indians.—Principal Language spoken in this Colony.*

MY DEAR SIR,

*Paramaribo, October 27.*

IN giving you the description of the customs and manners of the inhabitants of Paramaribo, I must tell you, that societies of family parties are here but few, as most of the principal owners of estates, who used often to reside in town, have left the colony, and most of the present residents are unmarried. These choose for the management of their domestic affairs, housekeepers, who are, in general, women of colour; but though they possess a great deal of vivacity, yet their company cannot be interesting to other than their masters.

A wealthy inhabitant of Paramaribo generally employs his time in the following manner: He rises at six o'clock, and, to enjoy the pleasantness of the morning, takes his breakfast under his piazza, at which he is attended by a number of female negroes, and a boy who presents him with a segar-pipe; during this time he orders the domestic concerns for the day; then, putting on a light dress, he takes a walk by the side of the river, to see if there are any new vessels arrived, and to converse with their captains. About eight o'clock he returns home, and till ten employs himself in business, then takes a second breakfast, which consists of more solid articles than the first, and would be considered in Europe as a tolerably good dinner; after this he occasionally returns to business till about two o'clock, when he goes to a club, of which there are two principal

ones; here he learns the news of the day, takes some refreshment or cordials, and returns home at three to dinner, which is often in the society of his friends. Some have the same custom here as prevails in the south of Europe, of indulging themselves with a nap in the afternoon, but others rather prefer a walk. About six o'clock, after taking his tea, if he is not engaged in any other company, he again visits the club to play at cards or billiards, and about ten he returns home to his supper, and then to rest.

Several gentlemen who have a taste for music hold a concert almost every week, to which they invite company. There is likewise a theatre here, and gentlemen, for their amusement, have given us several representations; amongst them were some very excellent performers.

Besides the balls given by the governor and general in honour of some particular days, there are also subscription balls, where the colour of the dresses cannot afford more variety than the different complexions of the company.

The inhabitants who are born here of European parents, or the creoles, shew, in their infancy, an early display of extraordinary talents; but they are like the fertile soil of the tropics, which, if not well cultivated, will soon be overspread with weeds. Some, who have the good fortune to obtain proper instructions, prove that they are capable of being brought up to any line of business. They possess a strong memory for learning languages, and they are all distinguished by the excellence of their hand-writing; fencing they learn well, as also the use of other arms, and they shew a great deal of address in all bodily exercises. The people of colour born in this colony possess much the same talents as those born of European parents, and are well made. The women are remarkable for their fine figure, beautiful eyes, and fine teeth; but their dark complexion admits not the rosy colour of the cheeks: the hair is crisped; but the mestizos, who are born of an European father and a mulatto

woman, are a degree more remote from the negro ; and these persons are often so fair as to be hardly distinguishable from the Europeans. The quaderoons are still a degree nearer the Europeans, all the distinctions between them are no longer perceptible, and the laws themselves give them the same rights as Europeans. They possess a great deal of vivacity in their temper, much natural wit, and, it is said, they are very constant in their affection. A curious custom prevails here among the free coloured women, who will sometimes challenge one another, when they are offended, before a tribunal of their own sex. They appoint a day and fix a place, which is in general a handsome garden, where a large tent is erected, and in the evening is well lighted up. The lady who first gave the challenge is seated in the principal part of the tent, surrounded by her own slaves, and those of her friends, finely dressed. A circus of chairs is placed for the visitors. The lady (or to whom she gives the commission) sings a line containing part of her complaint, or some reflection upon her antagonist ; and this is repeated in a chorus by the attending female slaves, and followed by other lines until it becomes a complete song, between the different parts of which there is a dance ; and the negro females accompany the movements and mark the time with fruit-shells strung on a string like beads. This method of treating the dispute gives at least, to the adversary, a fair opportunity of knowing what is spoken of her, and, of course, enables her to answer it. The next week she invites the company, when it becomes her turn to expose the character of her antagonist ; and this kind of alternate contention is sometimes carried on for several weeks, during which they are visited by some of the principal inhabitants, as the scene affords considerable entertainment. Sometimes, indeed, these females of colour will challenge a friend, in a frolick, to arrange such parties against one another, and a great deal of humour is then displayed, in which even the visitors are often not spared ; but to prevent any disorder

at such numerous meetings, some of the police officers are always in attendance.\*

The free negroes are esteemed to be about equal in number at Paramaribo to the people of colour: they are handicrafts, such as blacksmiths, carpenters, taylors, shoemakers, &c. but they work extremely slow, and are very negligent, so that little dependance can be put in most of them. There is however a great difference between those who have been instructed in the Christian religion, by the Moravians, and the others; and I have found by experience how much more their word may be relied on; but in general all the free negroes are reported to be very idle, and will only labour just for a present subsistence. The negro slaves often declare that they are better off than the free negroes. In the songs which the plantation negroes frequently sing, there is one of a very lively tune, and is always accompanied with much laughter and mirth; the words are, Mackarele Saneda, mackarele Monday, mackarele Tuesday, mackarele Alleday, &c.; the meaning is, Mackarel Sunday, mackarel Monday, mackarel Tuesday, mackarel every day, &c. Seeing the negroes so very merry when they were singing this song, I asked them the meaning of the words, when one of them answered, "Mastera, when we have good master, we find ourselves more happy than those free negroes are, and when we see one of them, we make him hear this, for they live upon nothing but mackarel, whilst we other negroes have plenty of different provisions on the plantations." Mackarel is a very cheap diet here; and that the plantation negroes have some reason for their exultation, I am inclined to think, as I have seen very few among the free negroes as strong and hearty in appearance as they are.

The custom which the free negroes have of following their

\* These meetings, for which the license from the fiscal must be obtained, the people of colour call a Doo.

funerals, gives me an opportunity of observing them collectively.\*

The number of slaves kept in the town are estimated, as I observed in one of my former letters, at eleven thousand; they are not only employed in the management of the house, but are also put out to different mechanics, to learn those occupations of which their masters stand most in need. But there is one method here of employing the negroes, which should not be tolerated; some of the inhabitants, when they find a slave possessing sagacity, will make him a pedlar, or strolling trader, furnishing him with different articles, and leaving entirely the management of the business to him; but he is obliged to pay so much per week to his master, who cares not what means he employs to obtain it; now, when the man has been some weeks without selling enough for his regular payment, instances have occurred of his endeavouring to supply the deficiency by imposition; or even by theft, thinking that even if he should be detected, his master would, from a regard to his own interest, screen him as much as possible from severe punishment.

The great vivacity in the temper of the negroes is never more displayed than in their Sunday amusements; you know the lively play which is performed in the south of Europe, where one party shews with his finger a certain number, to which the other is to add with his fingers a number, and quickly to answer how many the number is together, which is performed with a great deal of

\* By the laws of Surinam, it is enacted, that if a master wishes to emancipate a negro, he must first prove how the negro is to gain his future living; or to give him a house with some land attached to it; besides which the master must give security to the value of 3000 florins, in case the negro should become so poor or infirm, or otherwise as to prove a burthen to the colony. It is observed, however, that the free negroes, whatever be their condition at first, decline too often in their condition, particularly their posterity; but some who merit to be excepted from this reproach, I know myself.

gesticulation ; but the negroes here have still a more lively game, one of them makes with his feet, all the extraordinary figures that are possible to be invented, and the other is to imitate them instantly, trying who can tire the other most. They play also with balls, but not in the European manner, by turns, but he is considered the best who can first catch the ball ; and being all of them constantly employed together, you may judge how fatiguing this must be to the players. The negro girls, while they are washing the floors of the houses, are frequently singing, and beating time to their merry songs, with the cloth with which they are at work.

The creole-negroes, particularly the women, have in general a more cheerful countenance than those brought from the coast of Africa, and though they cannot be compared to a beauty of a fair complexion, yet if a statue of a fine figured nymph executed in black marble can please you, then some of these sable females might likewise engage your admiration. There are here also some Indian slaves, but they are only allowed to be purchased when those Indian nations, who live on the territory of the colony, have been at war with some distant tribes, and have taken prisoners from them ; the inhabitants of the colony who buy them, employ them only as huntsmen, or servants, as they are never used for tilling the ground, for though they are very active, yet they do not possess any remarkable bodily strength ; and besides they are in their disposition, rather of a melancholy turn. They sometimes feel an unusual eagerness to return to their own nation, but will not venture the passage, for fear they might fall into the hands of Indians, who do not belong to their own tribe, and thus become their slaves again, therefore they rather prefer to stay with their European masters ; but then they soon fall into a decline ; grief and stupor end their lives.

Much has been said in Europe lately of the Bishop of Chiapa, Bartholomew de las Casas, reproaching him that he was only the

advocate of the Indians, while he recommended substituting negroes for them, in the colonies. At the same time much praise is given to the Cardinal Ximenes, who was against making use of negro slaves, for cultivating the newly discovered world, though by this he has occasioned longer severe treatment of the Indians; they were both men of great talents, and of most respectable moral character, but de las Casas knew better the different temper, and bodily strength of the Indians and the negroes from his own experience. This venerable bishop was not the defender of slavery, but he only gave it as his opinion, that if slaves must be employed for the cultivation of the colonies, the Indians were less adapted for it than the negroes; and I frankly declare that his sentiments appear to be just, not only from what I have myself seen of the Indian slaves here, but as it is so completely corroborated by the long experience of the inhabitants of this colony.

The singular negro language which is spoken at Surinam, has its origin in the different changes that have taken place in the settlement. Most of the first settlers here were English, and the negroes therefore learnt a part of their language, intermixed with their own African tongue, and words taken from the Portuguese; to which they afterwards added many of the Dutch expressions from their present masters, but ending most of their words with vowels. This language, composed of so many others, has not a large vocabulary, but they make up the sentiments they wish to express, by uniting words as follow. Water is *watera*, but when they want boiling water they call it *fire-water*: *talke*, signifies speaking, but language is *talke talke*, &c. But as all the newcomers from Europe were anxious to learn this language, in order to be understood by the negroes, and as their children were of course attended by them, they learned it from them, by which means it is now become the common language of the colony, so

that frequently a long conversation is carried on by English and Dutch inhabitants in this common dialect, without the assistance of which they would not understand one another. The Moravians have made a grammar of this mixed language, but they were obliged to coin many new words, for the purpose of conveying to their hearers an idea of the Christian religion.

## LETTER XII.

*The Climate of Surinam.—General Opinion respecting it.—Dexterity of the Indians in hunting.—The wet Season.—Climate of Paramaribo respecting Health.—How to improve it.*

MY DEAR SIR,

Paramaribo, Dec. 29th.

I AM not surprised that you still entertain so unfavourable an opinion of the climate of Surinam, since so many authors who have treated on that subject, give the most melancholy description of it, and they were so far in the right, when they considered how much the first settlers suffered here ; but it is a general opinion in this colony, that the climate has changed considerably for the better during these last twenty years, and the old planters mention diseases as very common among the inhabitants formerly, which are now no longer known.

The great population of the colony, and the better clearing of the ground, has been the principal cause of this happy change. Formerly extensive swamps exhaled thick clouds of vapours, and being shaded by immense forests, the breezes had little or no power of dispersing them : so that in the time of the heavy rains, they became stationary the greatest part of the year. But now a more serene atmosphere prevails. The year is divided into two dry and two wet seasons. When the sun is advancing from the tropic of Cancer, within twelve or ten degrees, light showers refresh the land : this begins about the middle of April, and increases till the middle of June, when the rains fall in torrents, and greatly surprise those

who have lately come from the north of Europe ; but in the southern part, as Portugal and Italy, the showers are sometimes as heavy, though sooner over. At the beginning of July these heavy rains begin to decrease, and in August the long dry season begins, and continues till November. When the sun is approaching to the line from the tropic of Capricorn, the second wet season begins : but as at that time the sun is more distant from this part of the globe, the showers do not then last so long. Captain Stedman found no difference in the two rainy seasons ; but as he was most of his time in the forest in the interior parts of the colony, where it always rains more than in the vicinity of Paramaribo, he had no opportunity of observing the distinction. December and January constitute the short rainy season, February and March the short dry season. In the time that I have been in this colony, the highest degree of heat has been ninety-one degrees of Fahrenheit, when it is known that it has been in North America, at New York, one hundred degrees, and even a hundred and ten. The most time I had the glass standing from eighty-three to eighty-four, and the lowest was seventy-five, the weather changing always very gradually ; but to make more exact observations on the weather, I have wrote to Europe for three more thermometers.

The ancients, and even philosophers too, thought there was reason sufficient to conclude, that it was impossible those countries which are situated under the Tropics could be inhabited, as the air was supposed to be inflamed to such a degree, that no human being could endure it ; but modern discovery has shewn their error, and that these countries are in general, better peopled than the most northerly parts of the globe. There is however still in Europe a prevailing idea against the climate of the Tropics, which does it great injustice. A celebrated author\* concluded from the unpleasantness which he felt in a close summer's day in Europe, how much more he

\* Montesquieu, *l'Esprit des Loix*, liv. xiv. c. 2. p. 68.

would be affected by the heat, if he resided in the Tropics; but in this country, the degree of atmospheric heat differs very little all the year, and therefore the body is not affected by change. In the course of twenty-four hours the sun is only half the time in the horizon, and has no more than half an hour's declension throughout the year: yet when the heat might naturally be expected to become most powerful the sea breezes set in, and last from about ten in the morning till five in the afternoon, which effect seems to arise from the diurnal motion of the globe, and the rarefaction of the air, produced by the great power of the sun pressing it from east to west. These tropical breezes passing over the great ocean, and attracting much of the saline acid, makes them particularly cooling, and preferable to the European zephyrs, which are very inconstant and fluttering, whilst here we have a stream of delightful air constantly flowing from the heavens, and refreshing all nature in an equable course.

It is during the dry season that the Indians often come to Paramaribo. Government has erected a building for them near Fort Zelândia, which serves them as a caravansary, where they always find a lodging ready for them. One day on a tour to the public walk, and passing by an adjacent place, where many bushes are left to grow as a wilderness, my terrier chased an eguanna, of about two feet long, which made its retreat on a large tamarind tree: knowing this lizard to be one of the favourite dishes of the Indians, I proceeded to the above mentioned lodge, and found there a party of Arrawoukes: they seemed to have just done dinner, and were taking their afternoon nap in their hammocks; but when I called out Eguanna, eguanna! and pointed out the place where I had seen it, they rose in a moment, all hastening to take their bows and arrows, and followed me. We perceived the eguanna in the upper branches of the tree, and the first arrow which one of the Indians drew, hit it, but the animal retreated into the thick foliage;

and though the Indians shot many arrows wherever they saw the leaves moving, they could not know the effect, as the tamarind trees stand here very close together, and the branches touch each other, the animal might therefore make its escape; but now most of the young Indians began a general attack by climbing the trees with great agility, but not as the Europeans do, by the help of the knees. These Indians put the soles of the feet against the trees, and in this manner walked up, holding fast with the hands, which certainly must require a great deal more strength. When they reached the top of the trees they soon gave a shout of triumph, having caught the game: and one of the Indians taking the eguanna by the hind legs, stood upright on a branch without holding himself, and swinging the animal several times over his head, threw it down where the Indian females were waiting for it, whilst the other Indians were still sporting with much address in the branches of the surrounding trees. As this happened on the public walk, and near the government-house, several English officers, and many other persons were attracted by the rejoicing and exclamation of the Indians, and came to see the sport. Several of the Indian women had light bows, and soft cotton balls, fastened on the points of the arrows, for shooting those birds which they wished to preserve alive; when we made them understand our wish to see the effect of their bows, they shot several little birds with great dexterity. All these Arrawoukes Indians seemed to profit by their frequently visiting the Europeans, and were of a very genteel behaviour, for when many of us were too eager to see how they were shooting the eguanna, and had advanced too much under the trees, the Indians came directly to us, making signs with their hands that we should be hurt by the descent of the arrows, and they would therefore cease shooting till we had removed from the place.

I had thus an opportunity of seeing by chance the dexterity of the Indians in hunting, which before had never occurred to me in

my various journeys in the country, and all who witnessed it returned home highly gratified with the spectacle.

With respect to the other season, the rains seldom continue long; but are rather heavy showers, as the clouds are soon dispersed by the sea breezes. It seems that the change of the moon has here some influence in regulating even the hours when the rains fall, and this will continue in the same manner for several days, so that if it rains much at night, the mornings in general become fair; and if it rains early in the morning, then for the most part at noon the rain ceases. I have seen it rain for about a week at noon, while the mornings and evenings were very pleasant; and there are always many days in this season during which there is no rain. What happened to me in this season, a few days ago, I shall relate to you another time.

It is only in the rainy season that thunder clouds appear in this part of the world, and though they seem to be very heavy, yet, it is said, that unfortunate accidents happen but seldom. The thunder, however, rolls here in a most solemn and awful manner over the whole horizon, and it cannot be better described than in the language of the ancients, who called it, "the voice of the Almighty speaking to his creation."

The superiority of this climate to that of the West India islands is proved by long experience, from the circumstance that the desolating hurricanes, which ravage those parts, never extend so near to the line as where Guiana lies. This degree of the tropic climate is likewise observed by the physicians to resist the action of the malignant fever, which becomes less contagious; the equal temperature of the heat here having the same effect as the cold weather in the north.

Dr. W—lf—g, who is one of the most able physicians of this place, told me, that he had tried the inoculation of the cow pox, but that it had no effect, and as the matter might not have been

fresh enough, he wished to make another trial. The inhabitants, however, did not like to encourage it, as the small pox very seldom appears in this country, except it is introduced by foreign vessels, and for preventing this they take the greatest precaution.

Another fortunate circumstance for the colony is, that they have no earthquakes; and though they sometimes feel a shock when there happens to be one in the neighbouring countries, yet these have never done any damage here. Paramaribo, lying in  $5^{\circ} 43'$  north latitude, has, therefore, superior advantages of situation to many other towns in the tropics; and still more improvements might be made for the greater salubrity of the air. For instance, the burial grounds, which were formerly at a distance from the town, since the great enlargement of the place, are now closely connected with it; and those who pass them in the hottest part of the season, soon experience how noxious these depositaries of the dead must be to the living inhabitants of the town. There has been lately formed a new burial ground, but many of the inhabitants do not like to have their relations interred there; but rather choose to pay a high price for a burial place in the orange square, which lies in the middle of the town. This, perhaps, is not always the effect of vanity, but from a wish to honour the remains of their friends, and to shew their affection, by interring them where others of equal fortune have deposited their relations. An order for the abolishing of this burial ground, by government, would be of the most effectual benefit to the inhabitants.

The yard of the Dutch church, which is situated in the most populous part of the town, is also used for interment; and on making some observations to the officiating clergyman on this subject, he declared, that there had already been some objection made by the court of Surinam, to the burying any more there; but he had persisted in continuing the practice, as it was his duty, he said, to take care of the emoluments of his successor as well as of his own. But

a resolution of government would very likely relieve him from this burthen on his conscience, while, at the same time, some compensation might be made for the loss of this part of his income.

In other respects, it must be said, that the streets are kept very clean ; and here is a species of the smaller sized vulture, which is not allowed to be killed as it frequents the town, where it devours the carcasses of reptiles or any offal that may be lying unobserved. Twice in the year the police officers inspect the town to see if the gravel ground, orange trees, and lime hedges, are all kept in good order, which makes the streets appear as a fine walk, and many of the new-comers compare Paramaribo to a complete garden.

## LETTER XIII.

*On the Effect of the Climate of Surinam on different Constitutions.—The best Method to preserve Life and Health.—Consequences of extravagant Living, and Temperance.—Instances of Longevity in this Colony.—The Climate particularly favourable to Females.—How the Climate acts on Persons of different Countries.*

MY DEAR SIR,

Paramaribo, February 6th, 1807.

HAVING given you a description of the climate of Surinam, I shall now proceed to state some observations, which I have had the opportunity of making, upon the effect of this climate on different constitutions. It is a happy circumstance, before a voyage to the tropics is undertaken, when it is foreseen whether the person will be much influenced by the change of the climate. But this unfortunately does not seem to be sufficiently attended to in Europe. A family wishing to carry on a commerce, or to settle some affairs, in the tropics, often chooses among themselves the youngest, most healthy, and strongest, to go to that country, thinking him the best adapted to resist any attack of the climate; but by his plethorick disposition he becomes more affected by the change in this country, and whilst nature is gradually bringing on a crisis to mould him to the climate, his strong constitution acts against it, and by a violent effort he sinks into the greatest danger. On the contrary, a weak constitution is more pliable, and, therefore, not only passes over easily the time of seasoning, but the climate in reality becomes more beneficial to him, as I have not only experienced in myself, but have even seen the good effect in many others, who have told

me, that the climate agreed perfectly well with them. Youths of about the age of ten or twelve, and persons of thirty-five years, and upwards, will likewise run very little hazard in this climate.

By this description, it is not meant to discourage those who are in the most vigorous state of health and spirits, to give over their intended voyage to this part of the world, but only to recommend to them a more particular attention to their constitution and mode of living.

But the misfortune is, that when Europeans first come hither, the great hospitality of the inhabitants of this country, and their cheerful society, engages them so much in company, that they imperceptibly fall into a course of free living, which proves very injurious to their health. Many of the wealthy inhabitants of this country live in the following manner: they take their breakfast as soon as they rise, after which they begin to drink cordials, which are sometimes repeated; then they sit down to a second breakfast, which consists of several dishes of roasted meat, fish, &c. &c. a proportional quantity of beverage is also taken; and at three o'clock a plentiful dinner is served up, at which is drank either claret or Madeira, or perhaps both. Besides tea in the afternoon, punch is drank, which is not always made very weak, and a copious supper closes the scene of luxury. Now, if a person in Europe was to live in this manner, would he not be considered as rashly endangering his health, and ruining his constitution? But there are some here who pursue this practice, and yet enjoy tolerable good health; their life, however, is always very precarious, whilst those gentlemen who are far advanced in age, of whom I enquired respecting their mode of living, assured me, that they never had lived in such an extravagant manner. I have witnessed several persons, who were in apparent good health, soon taken dangerously ill, but never heard them lay the fault on the climate, instead of which, they candidly confessed, that it was entirely their own neglect. All this should certainly induce a new-comer to pay

the strictest attention to his mode of living, for which the following rules may be recommended.

On his arrival at the colony, he should take care to get a lodging in a healthy situation : it is not sufficient that the house stands on a dry ground, but there must not be in its vicinity, particularly from whence the tropical breezes blow, either swamps or wildernesses of woods ; wherever this has not been attended to, the consequences have proved fatal. There is a house which stands in a pleasant situation here, at the Hortus Surinamensis, and yet whoever takes a lodging there, is certain of becoming dangerously ill. The last who occupied it was Colonel Crosstone, and he died in consequence, very much regretted on account of his estimable character. It is said, that his servant also fell sick. I went to see this house, with another gentleman, and it appeared to us, that it was only affected by a field adjacent to the garden, which was formerly cultivated, but is lying now fallow ; the trenches are stopt and filled up with rotten vegetables, producing, of course, a corrupt air which is carried by the breezes into the house. It is better to sleep in the upper part of the house, as the country is low, and a part of the year damp ; experience shews the utility of this, as those inhabitants who have ordered their negroes to sleep up-stairs, have since found them remain in much better health. It is the custom here, in common with other countries of the Tropics, to sleep within mosquito curtains, but as they are in general too close, and the mosquitoes coming in the same direction with the breeze, it is better to have in the windows of the bed-room which lie to the east, gauze frames, and the mosquitoes which may have happened to get into the room can soon be driven out by fumgating it with some sugar or dry orange leaves, in the evening just before the windows are shut.

A particular care with regard to dress is likewise necessary, and many new-comers catch severe colds by exposing themselves to a current of air after great perspiration ; but the method they use

here of cooling their beverage might act as a caution to them. A wet cloth is put round a decanter, which is made of a porous earth, and this decanter is put into a current of air, which cools the liquor surprisingly. Those who have suffered much by colds, will sometimes fall into other extremes, and clothe themselves entirely with flannel. It is true that by this they prevent their catching cold again, but then they increase an unnecessary perspiration, which the close texture of the flannel does not allow to evaporate quickly. Cotton, as a produce of the Tropics, and made into calicoes, may answer the purpose of preventing those from catching cold who are born in this country, but it seems not sufficient for European constitutions; a light worsted jacket next the skin answers the purpose best, as it allows the air to penetrate sufficiently, and prevents any ill effect from the perspiration, and over this jacket any dress can be worn without injury.

With respect to the general diet, whoever will accustom himself here to take the first thing in the morning a glass of cold cistern water, will find it conduce much to his health, and in a short time it will prove very agreeable. But cold bathing is the most beneficial, and a shower bath is preferable to any other method; but when this cannot be had, bathing in a large tub, and pouring on the head a pail full of water, will be sufficient. It is best to bathe in the morning before going out; and whoever uses the cold bath daily, will find little reason to complain of the debilitating influence of this climate. Some gentlemen use warm baths; but though they may find it momentarily comfortable, it is observed, that they are sooner apt to catch cold. If a prickling heat appear, it will be good to have the bath milk warm, though the bathing of the head may be still continued with cold water.

The breakfast may be according to what a person has been accustomed to in Europe; and if he has an appetite again at ten or twelve o'clock, he has a good choice of the most delicious fruits; but

it will be always advisable to eat with them a small piece of bread, as it imbibes a part of the juices of the fruit, and prevents the stomach from cooling too much.

The dinner may also consist of the different articles used in Europe; but it will be always better to take more vegetables than meat. Some glasses of generous wine at dinner cannot be in the least injurious, but they should be taken as a relish, and never as a remedy, under the plea of helping better digestion; for that purpose benevolent nature has given the finest spices to the Tropics, and these the natives use abundantly.

The best beverage used here when not at dinner is the morning spruce beer, of which the essence is frequently brought by the vessels from North America. In the afternoon a sangoree, consisting of Madeira wine, slices of lemon, water, and nutmeg, or a weak punch may be drank; but distilled spirits in the torrid zone are the most pernicious things to the health that can be taken. It is true the spirits are sometimes lowered by the addition of water; but the misfortune is, that in the course of time, the persons who habituate themselves to the mixture of spirits and water, pay but little attention to the height of colour, or the increased proportion of the former to the latter.

The supper in this country of course ought to be always very light. If by this diet a new-comer of a plethoric constitution should still fear the effect of the climate, let him then take a lesson from nature, and observe how she saves here many of that description by ejecting a humour from the ear, nose, &c. and let him use an issue, which will be of the greatest benefit to him; however, if he feels an indisposition which was unknown to him before he arrived at this climate, he should in that case consult a physician. There are here two who particularly merit the greatest consideration, as well for their medical knowledge, as for their long practice: Dr. W—lf—g, whom I have already had occasion to mention when speaking of the small-pox, and Dr. D—b—s.

The mornings and afternoons are very pleasant for exercise, and in the morning especially, a walk to the west is advisable, because in returning when the sun becomes more hot, the easterly breezes are constantly in your face, which refreshes you all the way home ; but with the aid of the umbrella, even at noon, the weather does not feel unpleasant. The umbrella is in general use with the inhabitants, who have long resided here, but it is very little regarded by the new-comers, by whom it ought to be less neglected, as the use of it will prevent the complaint which is called in the south of Europe coup de soleil, (the stroke of the sun), which occasions the most violent head-ache, and oftentimes sudden death.

But after all, should a fresh comer at any particular period suffer by the heat of the season, let him go for a while to a cotton plantation near the sea coast, and he will there experience the benefits of a most delicious air.

It is peculiarly necessary to be guarded in this country against violent passions, as the climate tends to promote excessive irritability, and, therefore, it is indispensable that a person should keep himself in a cheerful temper, as the best method of preserving good health.

To give you a better idea of this climate, I have made an extract from a weekly paper published here, in the German language, from the 7th of August 1792 until June 1793, by Mr. Engelbrecht, and which, among other general notices, records the following deaths at Paramaribo.

1792				Years
Aug. 5	Blacka van Abigael (a free negress) died at			
	the age of	-	-	70
14	T. C. Wilderwank	-	-	83
22	Mr. J. F. Time	-	-	67
27	J. J. Van Claver	-	-	74
Sept. 10	Luis Marchan	-	-	60
Nov. 18	Mr. Philip Jacobs	-	-	78

Dec. 5	Colonel Gerholt, having served in this colony 40 years	-	-	-	-	Years 80	Mon. 6	Da. 25
1793								
Jan. 19	Mr. J. D. Limes	-	-	-	-	67		
Feb. 3	Mr. J. D. Kustner	-	-	-	-	76		
	5 Jacob vande Bey (a free woman of colour)					95		
Mar. 4	Salamon Blanco	-	-	-	-	85		
	8 Mr. Anthony Smith	-	-	-	-	65		
April 3	A. H. Dickson (a fisherman)	-	-	-	-	60		
May 8	Sampson	-	-	-	-	88		
June 30	D. van Pardo (a free woman of colour)					72		

As this list includes only eleven months, it shews that people of an advanced age are not rare here; to which I can add, that I have myself seen many persons apparently very old. There is, for instance, a negro woman living with my landlady, who is supposed to be one hundred and twenty years old, for though she cannot tell herself what her exact age is, yet she can relate circumstances that happened within her knowledge, in this colony, when she was a child, from whence it appears she must be about the above mentioned age; and I have been told by a very respectable person that he knows a negro woman of one hundred and thirty years old.\* It might be asked what art do they possess of lengthening their lives to so great period in a country which is reputed to be so unhealthy? The only answer is, their diet. They live, as we may say, after the manner of the Patriarchs. With regard to the negroes attaining so great an age, it might be said, that their constitutions agree better with the temperature of this climate; but the Jews also live to a very advanced period here, as they likewise adhere strictly

\* Though these great ages may be somewhat exaggerated by common report, yet there can be no doubt of the two women having arrived at a most protracted period of human existence.

to a wholesome diet; and you will also find in the list some very old Dutchmen, and some who were not born in the colony, amongst them is an officer who served forty years, and certainly exposed himself often to the different effects of the climate; but from all the information I could obtain concerning these persons, it appeared that they all lived very temperately.

To the ladies this climate is particularly favourable, and it is said, that instances are not rare where they enter into the third and fourth marriage; undoubtedly it is, in a great measure, owing to their mode of living, that they surpass so much our sex in longevity. However, this climate does not require a severely abstemious diet, but only to enjoy the comforts of life with moderation. It is a common observation in the West Indies, that the English live the shortest, the French longer than them, and the Spaniards the longest of all; and the bills of mortality justify the remark.

## LETTER XIV.

*The Climate of Surinam as affecting the Health of Sailors and Soldiers.—A Proposal for obtaining Recruits who are well inured to the Climate.—On Captain Stedman's Plan of Reform "for the Increase of Population and universal Happiness."*

MY DEAR SIR,

Paramaribo, March 9th.

IN my last letter I have endeavoured to shew you, by a number of facts, how a new-comer in this colony may preserve himself against the influence of the climate. He must however maintain a firm command over himself, to be able to regulate his mode of living: but the sailors and soldiers merit a distinct consideration; the former can be better managed, as they are, in general, on board their vessels, and if not much employed, as they were formerly, in conveying the colonial produce from the plantations, they are less exposed to the heat of the sun, and they would be still less so, if more openings were to be cut through the high and thick cluster of trees, that stand on the opposite shore of the river, in which case the air would become sufficiently cool on board the ships.

But as the soldiers cannot be so well looked after as the sailors, they find too many opportunities of obtaining liquors; and how pernicious these are to them, may be understood by the destruction they have occasioned of so many native Indians. And the deleterious qualities of the new rum are so universally known, as to have acquired for it the appellation of kill-devil.

The troops which are sent to the Tropics are often new raised regiments, and consist mostly of young men, upon whom the influence of the climate is most dangerous: it might perhaps be

therefore better to send out only such regiments as are composed of men who are farther advanced in life ; but for the recruiting of these regiments, it might be very useful to establish a military school in the colony, not only for the creoles of European parents, but even for the people of colour, who shew considerable address in military exercises, and are very partial to a soldier's life. These would, no doubt, bring their children to the school, if it could be done free of expense to them ; and no just suspicion can be retained against these people, as they are strongly attached to the Europeans, and have always assisted them against the bush-negroes. The negroes dislike the mulattoes, and as they express their sentiments often in songs, they have one to the following purport, "The white people have a country, the negroes have also a country, but the mulattoes have none." In the proposed military school, there should be some days appointed in every week to take the young soldiers into the woods to exercise them in shooting ; whereby they would acquire the greatest address in marching through all the difficulties of these wildernesses, and so become the best defenders of the colony against the attacks of the bush-negroes, as well as against any other enemy.

If the soldiers of the European regiments that are stationed here, should like to see their children brought over to the colony, at an age where they risk so little from the change of climate, and have them educated in the military school, were it done by government, the expense, including the school, would not be so great as that attending the constantly sending over new regiments ; besides the advantage which would hence accrue in saving so many valuable lives, which are now lost by coming over at an improper age ; and if some portions of land were given to those soldiers educated in this military seminary, who conducted themselves well, it would be an inducement to many of the poorer class of Europeans, to have their children sent over, with thanks to the government who provided so well for them.

Captain Stedman in his account of Surinam, &c. (in the edition of 1806) vol. ii. chap. 29, proposes a plan of reform for the increase of population and universal happiness. At page 371 he says, " I cannot help thinking that not only Surinam, but the West India colonies in general, might accumulate wealth to themselves, and promote the permanent happiness of the slaves that are under their subjection, without having recourse to the coast of Guinea to supply the almost hourly consumption of that unfortunate people. But before I proceed, it will be necessary to state the manner in which the negro slaves *are* distributed and treated, by the customs of this settlement only, without adverting to the distribution or government of them in other colonies; from which, however, those may equally derive some profit; and then I shall endeavour to point out how, in my opinion, they *ought* to be distributed and treated according to the laws, not only of humanity, but of common sense.

" I have before observed, that in Surinam there are supposed to be on an average, about 75,000 negro slaves of all denominations, which (allowing them, for the sake of a round number, to amount to 80,000) are here distributed in the following extraordinary manner, viz. The plantations, being about 800 in number, though some have but 24 negroes, and others 400, we will suppose them to possess 100 slaves each, which complement is exactly the above number of 80,000 people. These are employed in this settlement as follows; the first column of figures alluding to *one* estate, the second ditto to *eight hundred*."

Employments.	On one estate	On eight hundred estates
Four boys or male servants to attend about the house -	4	3200
Maids or female servants to wash, sew, iron, &c. -	4	3200
A cook for the planter, overseer, &c. -	1	800
A fowler or huntsman to provide game for the table -	1	800
A fishing negro to provide fish for ditto -	1	800
A gardener to provide the table and the flower garden -	1	800
To attend the bullocks and horses on the estate -	1	800
To attend the sheep on the estate -	1	800
To attend the hogs on the estate -	1	800
To attend the poultry that is on the estate -	1	800
Carpenter negroes, to build houses, boats, &c. -	6	4800
Cooper negroes to make and repair hogsheads -	2	1600
A mason to build and repair the brick foundations -	1	800
At Paramaribo, some to trades, others for shew -	15	12000
A negro surgeon to attend the sick negroes -	1	800
Sick and incurable, that are in the hospitals -	10	8000
A nurse for the negro children that cannot be with their parents -	1	800
Children under age that can do no work of any kind -	16	12800
Superannuated negroes, worn out by slavery -	7	5600
To work in the field, no more than 25 miserable wretches -	25	20000
Total or complete number of slaves in the colony -	100	80,000

Captain Stedman goes on to say : “ By this it appears, that no more than 20,000, or only one fourth of the whole number, are condemned to do all the labour of the fields, on whom it may be said, chiefly falls the dreadful lot of untimely mortality that I have formerly mentioned. Now it is evident, that if the 50,000 able-bodied slaves that are in the colony of Surinam were put to equal drudgery, the mortality, which is now at the rate of five per cent. would then increase to at least the number of twelve out of every hundred, and would completely extirpate the whole mass in little more than eight years time.

“ Having thus at an average demonstrated how they are distributed, I must briefly observe, that while full 30,000 live better than the common people of England, and near 30,000 are kept in idleness, and do not work in the fields; the remaining 20,000 may be classed (that is in general) among the most miserable wretches on

earth, and are worked, starved, insulted, and flogged to death, without being so much as allowed to complain for redress, without being heard in their own defence, without receiving common justice on any occasion, and thus may be considered as dead-alive, since cut off from all the common privileges of human society.

“I will now proceed, by candidly asking the world, if the above is not an improper and senseless misapplication, not only of wealth, but of human life and labour ; which only by a proper distribution and management, might accumulate the one and relieve the other ?”

Now if we minutely examine this list, it will be difficult to point out those 50,000 able bodied slaves in the colony, which Captain Stedman proposes to have put to equal labour with the other slaves.

In the list, four boys are mentioned to serve in and about the house ; in general there are but one or two negroes in a family to attend ; but if there are more than these, they consist of such as are too young to labour in the fields.

Four female servants for household purposes,—are only to be found in large families, or occasionally employed when there is company on the plantation, at other times they frequently work in the fields,

One cook for the planters, overseer, &c.—certainly there must be one to cook for them, and it is impossible for him to be employed in the fields.

One fowler or huntsman:—in a country where there is so much game as is the case here, a huntsman is very necessary to provide for the table ; but the persons employed in this service, are often Indians or mulattoes, who are not used to work in the fields.

One fishing negro:—this place is in general given to one who is aged and past other labour ; which is also the case with the gardener. One to attend the bullocks and horses:—there certainly must be a person to attend to them. One to attend the sheep:—the most of the plantations have none, as they do not breed well in

this country. One to attend the hogs :—they must be guarded, they would otherwise do much mischief to the plantation. One to attend the poultry :—this office is in general given to an old negro woman. Six negro carpenters,—are only to be found on the largest estates; they are sent when very young to learn their trades in town, and have therefore never been accustomed to labour in the fields; besides, they are chosen from amongst those negroes who have most mechanical talents, and on account of their utility and skill, are more highly considered and better treated than the other negroes on the plantations. Two negro coopers must be considered in the same circumstances as the carpenters; which is also the case of the masons. Of the fifteen negroes at Paramaribo,—some of them might doubtless be spared for the use of the plantations; but I should suppose that the negro surgeon, cannot well be expected to work in the fields. Ten sick and incurable in the hospitals,—of course they must remain there. One nurse for the negro children,—she has her full employment. Sixteen children under age that can do no work at all, and seven superannuated negroes worn out by slavery, finish this list. It is not likely that the negroes would reach to so advanced an age, if they were so ill treated as is represented. And with respect to their starving, I appeal to all those who have visited different colonies; and from experience I can declare the negroes here are remarkable for their hearty appearance, which could not well be the case, if their provisions were either scanty or bad.

From these observations on the number of the negroes, you will find that the planters cannot, in justice, be reproached with keeping many negroes in idleness who might be sent to labour in the fields: and indeed this would be very inconsistent with the well known economy of the Dutch nation; Captain Stedman has therefore certainly gone too far in the ground taken for his proposed plan; but should I fall into similar errors, I request your kind indulgence

## LETTER XV.

*On the Abolition of the Slave Trade.*

MY DEAR SIR,

*Paramaribo, April 12th.*

I AM much obliged to you for the interesting information which you sent me, of the resolutions passed by the British Legislature of the total abolition of the slave-trade. At the same time you ask what, in my opinion, will be the consequences of this measure to the colony of Surinam. In complying with your wish to treat this subject, I need hardly observe that self-interest cannot have the slightest influence on my mind; since I have never bought a negro, nor do I intend to make any purchase of lands in the colonies. At this time, when all importation of slaves from the coast of Africa, into the English settlements, is strictly prohibited, it seems that calculations have been made in Europe, with a view of proving that the proportion in number of the two sexes among the negroes in the West Indies, does not differ so greatly as to prevent the regular increase of labourers born upon the spot. But whatever may be the aggregate number of the two sexes, or however well balanced the proportion may be between them, it is certain that in the distribution or allotment of them there is a very great difference. In the towns the female negroes are most numerous, many being necessarily kept for domestic servants, or are employed in those occupations which do not require much exertion or great bodily strength; but on the plantations, where labour is indispensable, male negroes are preferred, the women in the colonies not being put to those heavy employments which are imposed upon them by

the male tyrants of Africa, and other uncivilized countries. In this respect, therefore, the condition of the female negroes is rendered happier by their removal to the colonies.

When a person begins to form a plantation at Surinam, he first clears the land, by cutting down the large trees and sawing them into planks. To complete this expensive work, he is under the necessity of collecting a number of hardy wood-cutters ; consequently in this stage of his concern he has no employment for female negroes, who can only be wanted when the land is perfectly cleared for cultivation. I know timber plantations on which there are more than forty male negroes and only three females ; the planters, therefore, must cease to clear the lands if they can get no fresh supplies from Africa, as it is impossible to look for an increase of negro children on their estates.

In one of my former letters\* I observed, that many of the planters prefer the creole-negroes to the African, as being more attached to their masters, and because by early practice and attention they acquire a better method of cultivating the land. On these accounts the proprietors give rewards, by way of encouragement, to those negroes who bring up children. They have not, however, as yet had the satisfaction of seeing the increase of births bear an adequate proportion to what their stock of working negroes might naturally have led them to expect.

The inhabitants of Surinam attribute this deficiency of population in the native negroes of the colony to the natural licentiousness of their dispositions, and to the practice of polygamy, which is the consequence of it. I am aware that many persons in Europe are of opinion that this depravity arises from the enslaved condition in which the negroes are kept, and which makes them averse to regular matrimony that they may not have to rear up a large family. In answer to this, however, it should be observed, that according to the

\* Letter X.

accounts of travellers who have been in various parts of Africa, the same viciousness of manners prevails among the various tribes of negroes in their native land ; from whence it is natural enough to conclude, that they are in general kept in as great a state of slavery in Africa as in the colonies, or that they have a peculiar propensity to this course of life.

All who have had an opportunity of making observations on the character and conduct of the negroes, admit that they possess for the most part a great vivacity of temper, which, united with considerable bodily strength, often hurries their passions into violent extremes, since they are not kept in bounds by civilization, nor controlled by their religious opinions.

The Dutch laws which were given to Surinam at the first establishment of the colony, and by which a negro is declared to be free the moment he embraces Christianity, have unquestionably very much checked the zeal of their masters in promoting their conversion. It ought, however, to be considered, that the Christian religion does not interfere with civil rights ; but, without altering the condition or station of those who embrace it, recommends humanity on the part of masters, obedience on that of servants, and mutual attachment between both. In the course of time, therefore, as the nature of this religion is understood, and its beneficial influence experienced, the minds of men become gradually prepared for such a degree of moral refinement as may excite in those who are in power a desire of enacting milder laws ; and in those who are to be governed by them, a temperate and submissive disposition not to abuse those laws.

That the negroes are not destitute of genius and talents, abundant instances have shewn ; but that their progress in civilization is so slow as to be almost imperceptible, the present state of the whole negro coast of Africa, incontestibly proves. We have, therefore, reason to expect, that even when greater care and better means shall

be adopted for the instruction of the blacks in the West India colonies, yet that their minds will not improve so rapidly as to make them soon capable of enjoying properly the same rights as are possessed by the labourers of the civilized states of Europe ; and, consequently, to give them such privileges before they know how to conduct themselves, is a measure more generous than prudent, as experience has demonstrated.

If then we find that in many of the plantations of Surinam, it is utterly impossible to keep up the requisite stock of labourers by the increase of creole-negroes, owing to the disproportion there is between the two sexes ; and that even on others who are better provided for in this respect, and where all due encouragement has been given to the rearing of negro children, the increase of the creoles is still very inconsiderable, it is natural to suppose, that many planters finding their income failing, by the death of their negroes, without having the means of supplying their place with new recruits, will force the survivors to add to their work the labour of those who died. While the loss will be immediate to other planters, who may not adopt this cruel method, when they see their fields becoming daily more neglected ; as will certainly happen to landed proprietors of the most respectable character, and amongst whom are many who left their native country in consequence of the frowns of fortune, and since their settlement in the colony have employed all their assiduity in agriculture, as sanctioned by government, whereby they have at last acquired an income by which they can maintain a large family : now, it certainly must be hard upon them, if they have no time to prepare for the new regulation, nor are allowed any indemnification for the loss they may sustain.

That at present there are not by far so many negro children born in the colonies as to keep up a necessary supply of labourers, is generally admitted in Europe ; but it is at the same time expected, that by the prohibition of importing more negroes from the coast of

Africa, the planters will be obliged to encourage by all means the increase of the creoles. The great difficulties which have hitherto occurred to impede this plan are obvious. But let us even suppose that from this time the most effectual arrangements were made for the increasing of the creole-negroes ; it will, notwithstanding, require at least twenty years before the new offspring can be employed in cultivating the ground. Now, if till that time no new substitutes for the aged negroes can be procured, what must be the consequence to the whole colony ; the wealth of Surinam, which has been made by the inhabitants through their laborious industry for a whole century, will not only vanish, but, what is worse, the land will relapse into that state of wilderness and swamp which originally, by exhaling the most pestilential vapours, proved so destructive to the first settlers.

The slave trade, when attentively considered, certainly fills the mind with the most unpleasant sensations, and indeed imagination itself cannot paint to itself any cruelties in darker and more frightful colours than those which have been proved to be really committed in the course of this degrading traffic : on which account many persons of distinguished moral characters and talents united their endeavours to procure the abolition of the slave trade in the colonies belonging to Great Britain, and have at last succeeded.

The different African nations will no longer, from that quarter, be instigated by the intrigues of slave traders to declare war ; and their conduct towards each other in this respect will now, it is to be hoped, be as just as it was before the traffic of slaves began. Nevertheless, among uncivilized nations, the most trifling disagreements with their neighbours, will frequently create new wars ; and it is reported, that the custom still prevails on the coast of Africa of making the prisoners taken in war, slaves, and of treating them with the utmost severity, out of revenge, while those for whom they find no employment are sacrificed to their divinities. It is much to be wished,

therefore, that those philanthropists who have so greatly interested themselves in lessening the misery of the negroes, would make a strict enquiry whether these barbarous practices really prevail among the tribes in Africa, as is strongly reported, and as the gesticulations the negroes made, to shew what they expected would be their fate, when the Guineaman was taken by the privateer *l'Aigle*,\* leads me to think is the fact. Now, if in reality these cruel usages actually prevail amongst the African negroes, it will be found so far from being wrong, that it becomes meritorious to save those victims from their sanguinary conquerors, and bring them to a state of servitude in a civilized country, where, should they be treated with inhumanity, the laws have provided a redress.

But it is not necessary to obtain those negroes from the coast of Africa by the means which were formerly in use, since the European governments might take them under their own better protection.

The commerce between European and African nations is reported to be in many articles so considerable, that most likely the principal factories will be still kept up. To the resident officers at those places it might be intrusted by their respective governments, to procure, as proper occasions offer, negroes for the service of the western colonies. In choosing officers for those places, if, instead of regarding the qualification of talents only, a considerable attention was also paid to moral character, then no suspicion could arise of their being open to bribery. They who had been always acting upon principles of integrity in their native country, would not become corrupt on residing in Africa; besides, on the plan which I humbly conceive worthy to be proposed, the governor should take no profit in the number of negroes, how many soever he might obtain in the name of his own government. His salary as governor should be fixed; but every two years in which the reports

\* Letter II.

should state that the negroes sent by him from Africa to the colonies, were obtained in a lawful way, and were treated well, the European government should send the governor of the factory a valuable testimony of their approbation.

To him also should be sent several negroes born in the West Indies, but who still should have a knowledge of the language of the country from which they first originated; these negroes on their arrival in Africa would soon become acquainted with the different native tribes; and thus by their means the governor would know the circumstances which had occasioned a war, what might be the intention of the conquerors with respect to their prisoners, and in what station these were before they became captives. And when the governor had formed his judgment which of these negroes would be the most useful for cultivating the land in the colonies, and after the interpreting negroes had explained to the prisoners the nature of the situation they were intended for, should they be willing to part with their African masters; then the governor should enter into an agreement with the person in whose possession they are, to exchange those prisoners for such European goods as he may demand for them. Amongst the negro prisoners of war, of course all those who had been previously employed in labouring in the fields in Africa, would be the most useful for the colonies, and preferable to all others, except the creole-negroes. But the slave traders never made any distinction: they bought, for instance, as well as the others, those negroes who were reputed in Africa to practise witchcraft, which consisted chiefly in a knowledge of the different effects of the most powerful poisons, and the most artful methods of administering them to those who might have the misfortune of falling under their displeasure, by which means they were able to predict the time of their death. Those subjects, when transported into the colonies, have often destroyed a number of negroes, and sometimes their masters too, before their villainy could be discovered.

At other times the slave traders purchased a chieftain negro, or a great warrior, who, by change of fortune, had fallen into the hands of his enemy, and conveyed him to a colony, where he became very indignant with his treatment, and refused to labour ; but the owner who bought him, not willing to be a loser by him, would insist on his working, which would make the chief desperate, and induce him to use all the influence he had over the other negroes on the plantation, to engage them in rebellion against their masters, or to escape into the woods, where they were soon joined by other fugitive negroes, and this association committed afterwards all kinds of depredations in the colony. The governors of the African factories might likewise be allowed to buy such chieftains from their conquerors ; but only for the purpose of giving them their liberty, and allowing them to return in peace to their own country and people.

Old persons are very highly respected by the negroes, but I have no information of the manner of their treatment when they happen to fall into the hands of the enemy at war with their nation ; but should they be then ill treated, the governor should likewise purchase them, and send them to their own home.

By acts of humanity like these, the negro would universally entertain a high idea of the character of the Europeans, and this would lead to opportunities of civilizing them, and of forming with them more substantial and extensive commercial connections.

With regard to the transporting of the negroes to the colonies, according to the new proposed plan, they should be sent in government vessels, so that there could be no doubt of their being well treated. It is said, that in the Portuguese negro transport ships, there are always some negroes who have been born in South America, kept as stewards, who pay particular attention to their new African companions, and give them a description of the country they are going to, which consoles them so much that they arrive in good health and spirits at the colony. This method of the Portuguese is

highly deserving of imitation by other nations engaged in the same traffick. There is a regulation at Surinam, whereby government grants to the planters new land without paying for it; but it is on the condition that they afterwards procure themselves negroes to cultivate it. Now, it might be perhaps better if government made them pay for the land, and provided labourers for them; but if any of the planters should lose their negroes by inhuman treatment, or did not encourage the increase of the creoles, they should be supplied with negroes no more. Many other beneficial arrangements might also be made, by consulting the good sense and experience of those planters who have had most practice, and are known to be men of moral and liberal principles.

The expenses attending this plan for providing a sufficient number of recruits to cultivate the land in the colonies, can be no object to the government, whose views, instead of pecuniary profit, must be to secure the flourishing state of their western possessions. And while this benefit is obtained, another great blessing accompanies it, that of saving a number of negroes from their cruel conquerors, and from a slavery worse than death, if not, indeed, from death itself. However, it is reasonable to expect that there can be no loss at all, when it is considered how little value the savage chiefs of Africa set upon the prisoners whom they take in war, and in what high estimation they hold the manufactures of Europe.

The time when this kind of trade on the coast of Africa will entirely cease must depend on the progress of civilization of those negroes, and in their becoming more humane, of which already a meritorious example has been set by the king of the Foulahs, who does not sell any more negroes.

In finishing this letter, I cannot help expressing one wish, which is, that as the British government has a design of proposing to the other maritime powers of Europe, at the conclusion of a general peace, the joint abolition of the slave trade, they would, by the

same method, resolve also to suffer no longer people of their own nations to be exposed to a state of slavery on the Barbary coast; who, born under milder laws, and enlightened by a better education, suffer so much more when they are dragged to that most degrading situation. But the united resolution of the European maritime powers could soon make an end of this practice of the north African nations, and by that most glorious action distinguish our century from all former ages.

## LETTER XVI.

*On Natural History in general.—How to secure the Houses in Surinam from Insects.—On the large White Caterpillar of Surinam.—Curious Spider.—Snakes and Serpents.—The Rattle Snake.—Frog with a Tail.—American Cameleon or Agamma of Surinam.—Argus Colibri, a fine Species of Humming Bird.—Different singing Birds.—On the Rooks of Surinam.—Parrots and Paroquet.—Little Grass Paroquet.—Quadrupeds.—The Sloth.—Little Ant-eater.—Paca and Cavey.—Quadrumanes.*

MY DEAR SIR,

Paramaribo, May 14th.

YOU expect from me some remarks upon the natural history of this country ; but with regard to botany, you will soon have an ample description by Mr. B—m, who was sent by the former Dutch government as gardener and botanist to Surinam, and from his having resided here several years, his publication will certainly be received in Europe with great eagerness, especially as the study of botany is at present held in such high esteem, and in England is so extensively protected by the worthy President of the Royal Society. Though England by its extensive commerce is also able to make the greatest additions to the history of animals, yet of late I know of no more interesting publication in that language, than the General Zoology ; in France, the recent publication of Buffon's Natural History, with the additions of the learned naturalists of that country, makes it the most complete work in this science which has ever been executed. In Italy, a late

naturalist has made some very interesting discoveries ; but it were to be wished, that many of his experiments upon living animals had been less cruel, and in particular, where the result could lead to nothing more than merely the gratification of curiosity. Germany having but few commercial connections extending beyond Europe, has hitherto been prevented from making any great discoveries in the natural history of distant countries ; but much may be expected by her from the extraordinary genius and talents of one person, who may be properly called the German Pliny, and who is now making researches in a part of the world, which not only abounds in mineral riches, but is equally remarkable for numerous and most interesting varieties in all the productions of nature.

Another German patriot employs a part of his considerable fortune in making collections, and endeavouring to enrich the national cabinets with all the branches of natural history, for which purpose he has lately sent a person to the Amazon river, the country about which abounds in the same species of animals which are in Surinam ; therefore, my dear friend, what new discoveries can you expect me to send you ? Few however as they may be, I feel the greatest pleasure in communicating them to you. That part of nature to which I have devoted my principal attention and enquiries has been the animated creation, and particularly in making observations on the animal instinct. The various means made use of by the different species to preserve life, and for the continuance of their species, as well as their whole economy ; but I have not yet had an opportunity of observing them minutely, where it could be done to the best advantage, in the uncultivated and more interior parts of the colony ; and I found it very difficult even to obtain the animals, which are brought to Paramaribo for sale, as the Indians, and above all the bush-negroes, wish often to exchange them for gunpowder, the sale of which government has strongly prohibited ; but with those trading captains who do not always know

this law, they find means more readily to exchange them for that article, on which account they always offer the animals first to them before they bring any to town, so that I have often been obliged to go on board the vessels in the harbour when I wanted to see any of these natural curiosities.

A great number of different species of insects in the Tropics, are in Europe often considered as the worst plague of this country ; and yet upon mature consideration, it will be found that they are highly beneficial in the order of nature to the country where they exist. The many decayed trees here would encumber the ground, if it was not for the vast numbers of ants which take immediate possession of them, and in destroying the fibres, soon reduce them to the state of fine garden mould ; an uncivilized Indian, unacquainted with the danger arising from foul and stagnant air, would fix his habitation on or near marshy grounds without any thought, were he not driven from thence by the clouds of musquitoes ; and should he be determined not to quit this place, he is under the necessity of having a large fire all night, to keep his habitation clear of those insects, and at the same time the smoke expels a great deal of the damp air, without his knowing the benefit which he derives from it. To destroy these innumerable swarms of insects, surpasses all human strength and ingenuity ; and even an Hercules must submit to their attacks ; but in proportion as human society shall be extended and cultivation proceed, this evil will also diminish ; and if a house be erected in a healthy situation, and properly constructed, the insects will give very little trouble ; but the house where I live, though it is in a pleasant spot, is not well built, it being, like most other houses in this place, without a cellar, and stands only on brick pillars about two feet high : the consequence of which is that it affords a harbour to many sorts of insects, which in a rainy day, retreat hither from the surrounding trees. For this reason, I keep a piece of mat in a corner of each room, which they generally choose, and

then by inspecting it now and then, they are easily destroyed. When I first took the house here and slept up stairs, I heard at night the bats which were nestled in my roof, and as these are very unpleasant visitors in this country,\* I tried an experiment for their expulsion, the success of which exceeded my expectations. Just at noon when the sun shone most, I chased them from the roof with a long reed cane, and this frightened them so much, that they did not return again : I therefore repeated this whenever I heard any fresh intruders ; but this has not happened above twice or three times since I have lived here. The cock-roach, which is so very disgusting, might be hindered from running over the walls if the houses had pannels of glazed tiles ; there is one species of insect, however, of which I have not yet been able to get rid, and those are the small red ants, which prevent me from being able to keep any chrysales, as they destroy them all ; I have tried, by surrounding the chrysales with water, to preserve them ; but these ants come in such great numbers, that when the first of them fall into the water, the others cross over to the object upon them. They seem to live principally upon animal food, and make no appearance in the house, except when there are some chrysales, or a dead bird ; of which in a very short time, the eyes, ears and bill are entirely filled up with them,

\* The extent of the wings of the largest species of bat, or vampire, at Surinam, is about 16 inches ; but its body from the nose to the rump is 6 inches. I have seen persons who had been bit by them at night ; but that an animal about the length of 7 inches should suck so much blood as to make a person sleep from time to eternity, as is by many pretended, seems to be a gross exaggeration, for they are so shy in approaching, that they only choose the tip of the toe in general.

To destroy the white ants when they infest the houses, the inhabitants make use of arsenic ; but as this may be attended with dangerous consequences, and does not destroy the eggs of the ants, which produce a new race of intruders, I have therefore rather preferred using boiling water, which answers both purposes of destroying old and young.

and they begin their destruction of the carcase before it can come to putrefaction ; but in a climate like this, such an insect certainly is very useful.

I have obtained the large caterpillar covered with long white hair, of which, if I recollect right, Madam Merian has given a drawing and description, but it is not so venomous as it is generally represented ; it is said that the hand swells by touching it, but I have done this repeatedly without feeling any such effect, in the presence of Mr. W—r—t, who told me, after speaking of this in company with several gentlemen, that it was impossible for me to escape such a sensation, unless I knew of some preventive drug, with which I bathed my hands before I touched the insect : to make further trial with this caterpillar, I put it with a lizard into a cage ; but the next morning I found the lizard dead ; it is therefore likely that the bite of the caterpillar may be hurtful chiefly to small animals.

In my several journeys in the country, I have been bit once by a centipede, and another time stung by a small scorpion, both in the night ; the latter I found crushed to pieces in my sleeve ; but it swelled no more, nor gave me any more pain than the sting of a hornet probably does, and as soon passed away, by rubbing the place with a little sweet oil ; and still more efficacy is attributed here to theriaca, or venice treacle. The poison of the scorpions and centipedes seem to act only upon the blood, as I have seen small monkeys eating them frequently without any apparent bad effect ; there are much larger scorpions in the interior part of the forest, and a centipede which was sent from Fort Orange to town, measured above eight inches. The wounds they inflict, are said to be very painful and venomous, though not fatal.

In my first journey to the Saramacca river, on the boat approaching the bank, and touching the branches of the trees, an insect fell on the top of the cabin that had the appearance of a tarantula ;

it was about half an inch long, of a light green colour, and with yellow diagonal stripes; the body was divided into two parts, of which the abdomen had the form of a pear: the insect resembled much in its general figure, the vagabond spider; but its fore feet, which were of a bluish colour, were armed with claws, and the animal turned them to every side where it expected to be attacked; however, when I was going to proceed to a close inspection, and saying, This seems to be a tarantula, Mr. W. called out "a tarantula, oh, such a companion we do not want on board," and at the same time, with a branch which he unfortunately had in his hand, he gave a sweep on the top of the cabin, so that the insect dropped into the water, and my examination was at an end.

There is in the forests here, a black tarantula with yellow claws on its fore feet; it is about an inch long, but I never heard of its being venomous.

I have been told that in the interior parts of the forests, there is found a caterpillar, which makes cocoons of as fine a silk as those of the silk worm, but of a much larger size: if this should be confirmed, it would become an article of great importance to the colony.

Nothing frightens the Europeans on their first arrival here, so much as the snakes and serpents, which they meet with in the fields: but after a little experience they find that there are very few venomous ones amongst them; and I can safely affirm, that as long as I have been in this country, where in my walks into the forest I have killed a great number of them, and many have been sent me, none of the different species proved poisonous; a short time since, Dr. D—b—s, who is as pleasant and obliging in society as he is esteemed in his profession, and has here the finest collection of stuffed birds, had at last the opportunity to shew me the head of a venomous snake about an inch and half long, and about an inch wide, almost of a triangular form, and flat; its venomous

fangs were very long: the colour of the skin was a brownish grey. As the Doctor's negroes were going into the forest to cut wood they were followed by two dogs, who attacked this serpent, and the first which was bit, died; but the second, as the serpent had lost the greatest part of its poison, recovered.

From what I have just mentioned, you will find how much the venomous serpents have decreased here of late years, for from what some accounts relate, they were very numerous at the time of the first settlers; but still unfortunate accidents sometimes happen on the plantations; and as there is a reward paid by government for every tyger that is killed, it were to be wished that there was an equal reward offered for destroying venomous snakes, in order to extirpate them as much as possible.\*

I should wish to get some living poisonous serpents for the purpose of experiments, having never heard whether dogs, cats, &c. will eat of animals that have been killed by the poison of a serpent, and if they do, what effect it occasions upon them; but perhaps the poison of the serpent is like that of the scorpion and centipede, which, as I before observed, seems only to act dangerously on the blood without injuring the stomach. It is said that those snakes will swallow whole animals of a considerable size, the bones of which become pliable and partly dissolved, whilst they are getting gradually down the throat; it is a question, therefore, whether the action of the poisonous fluid upon the victim, assists them in dissolving and digesting their prey. Probably there exists no real poison in all nature, such I mean as is only injurious, and without any useful end at all: though it may become a poison by being misapplied, or

\* The venomous snakes are very distinguishable from the other species by their heads being flat, large, and wide on the top, and gradually decreasing to a blunt point; their large hooked teeth contain a tube, which is open at the point; through this the poison is injected into the wound. The poisonous bladders, which are situated one on each side, at the end of the upper jaw, are connected by a channel to the teeth.

taken in too great quantity. Thus even hemlock and arsenic are used with the best effect in particular cases, in modern medicine, and perhaps new discoveries may find the poison of the serpents equally serviceable.

The power of the rattle-snake of fascinating and bringing down small animals within its reach is here universally believed, as it is in other countries where this reptile exists. The explanation of this, which was first given, if I am not mistaken, by Mr. Forster, is apparently the most plausible, namely, that when the serpent is about to attack in the bushes the young birds in their nests, the old one, to defend them, flies at the enemy, and in this way becomes its prey, and that those who observe this, without exploring the cause, have attributed the approach of the parent bird to the charm of the rattle-snake. It has, however, been observed by others, that not only small birds, but also squirrels, will come gradually down from the highest boughs of a tree, and drop at last into the mouth of the serpent. Now, if it were for the defence of their young that they thus exposed themselves, it might be asked, why do they not act in the same manner towards dogs or cats, or any other animals which attack them? But since the Tropical eel has become known, it has been by some suggested, that the rattle-snake may possess a power something similar by which it is able to get at its prey, which, from its natural slowness, it would otherwise be impossible to catch. Perhaps the rattle-snake has the power of blowing an intoxicating vapour, which gradually weakens the little animal so much, that it falls at last into the reach of its enemy.

The certainty of the fact itself, and the cause, might, however, be accurately ascertained, by taking out the fangs of a young rattle-snake, in the same manner as the Egyptians and Indians do with many venomous serpents, and taming them afterwards, which would give a better opportunity of observing this creature's qualities and habits.

Of the aboma snake, which is the largest species in this country, I have seen a skin without the head measure fifteen feet; another sixteen feet. And I have been assured, that a few years ago, one was shot on a plantation, which measured thirty feet: the skin of this was sent to Holland. The skin of these serpents are finely marked on the upper part, and are of the same colour as the spots of the tiger; the under part is white or yellow, as there appear to be two varieties of them: but the aboma snake is not venomous, for it is said that the negroes often tame them, and keep them in their houses to destroy the rats and other obnoxious animals; so that some of the negroes seem to pay as much respect to them as to their deities.

The reptile here called the two-headed snake, grows to the size of about eighteen inches, and it seems nature has destined this species to make a link between the snake and the earth-worm: it is ring-streaked in the body like the worm; it has the appearance of being blind, the eyes being covered over with a skin. The tail is as big as the head, which has contributed to the mistake of its being another head. The colour of this snake is white, streaked with dark brown: it is not dangerous, as it has but very short, and not sharp, teeth.

This snake is also called the king of the ants, as it is often found in the hillocks of the ants, and the inhabitants here pretend, that the ants provide for this blind reptile; but the truth seems rather to be, that this snake preys upon the ants, which is the reason that it is often found amongst them. I have one in spirits, and mean to send it you by the first opportunity. All those species of snakes which are not venomous are very useful to this country by destroying a great number of noxious animals on which they live.

To the account of the tropical eel, which is fully given by Dr. Fermin, I have only to add, that besides the different experiments the Doctor made, and which I have repeated, I have tried the

power of the eel without touching it, by moving in the bason where the eel was confined, an iron bar rapidly, but at a distance of about two feet. The eel seemed frightened ; and merely from its motion, without its touching the bar, I received a most violent stroke in my right arm near the elbow. By this power he may be able to seize his prey, as well as to keep his enemy at a distance, the more so as he prefers lying covered over with mud, and shews very little activity. I had one kept in a water tub partly filled with earth, and fed it with worms.

The remarkable toad called the pipa, you have already a perfect description of ; but I do not know whether you are so well informed with respect to the frog with a tail. It is pretended by many inhabitants here that this frog changes into a fish ; but Dr. Fermin is perfectly in the right, when he expresses his doubt of this. I have seen this kind of frog in its different degrees of transformation ; but it must be allowed, that the tadpole resembles a fish more than that of any other species of frog, and that on its change, it remains still with the tail when it is full grown and has assumed its perfect shape of a frog. I have also one selected for you, and have sent you for the present an exact drawing of it in its natural size. There is a fish here called the Jakie, which much resembles the tadpole, and lives in the same marshy grounds with them, which very likely has occasioned the mistake of supposing that the frog changes into a fish.

But with regard to the American cameleon, Dr. Fermin is entirely mistaken, and the description he gives us is of the African cameleon, which he very likely has seen here in one of the cabinets of natural history, and has supposed it to be the cameleon of this country ; but the triangular crown said by him to be upon its head, and the long tongue, shew clearly that he is mistaken in the animal. The captains who come from Africa bring sometimes cameleons with them in spirits, and I have received such an one myself. It is to be

observed also, that the one which the Doctor describes, he says, was likewise preserved in spirits.

M. Sonnini, in his travels in Egypt, has given a recent description of the Egyptian cameleon; but from his account it may be concluded that the American cameleon is more singular in its variation of colours than the African.

The American cameleon, or as it is called here, the Agamma, is distinct from the African in its shape, by the back part of the head not running into a point, and its tongue being short and thick. The body is in length above six inches, and the tail above nine: it is in shape much like a common lizard, but has a bag which extends from the under jaw to its throat, and which it can draw up at pleasure. This cameleon is not possessed of those rapid motions for flight as most of the other species of lizards are, and for that reason nature seems to have bestowed on it the wonderful power of changing its colour to avoid and deceive its enemy; and therefore brown and green are the colours of the most importance to it; the first, that it may lie secure on the bark of the trees, and the second, among the leaves. It possesses those two colours with all their variegated shades in the highest degree of perfection. I have seen it often while getting up the tree in a dark brown, and as soon as it got up to the branches it assumed the most lively green. I have tried this at my own house before General A—h—r, the Rev. Mr. W—k—s, Mr. J. G—l, and many other gentlemen, who doubted this extraordinary power of the cameleon. We have put the creature on a green umbrella, and after it had assumed that colour, we let it down on the floor, which is made of the dark brown bollo tree, and it immediately changed to that dark colour. It changes most rapidly when newly taken, as by its fears it seems then to be most active to hide itself. When approached it endeavours to defend itself boldly, and it is said, that the bite of this animal produces inflammation, though the

teeth are very small; the greatest difficulty is to make it take any nourishment in a state of confinement. All the insects which I left with them for their food they constantly refused. Whenever theameleon is touched it hisses like a snake, and tries to bite; but I thought of profiting even by its anger, for after I had put it into a rage I presented to its mouth, in a pair of pincers, a spider, at which it bit with the greatest fierceness, and having once had the taste on its tongue, it seemed unable to resist the temptation, but swallowed the whole insect. In this manner I have kept two cameleons above a year, and they never would eat in any other way than being fed by this method.

If the ancients in stating that the cameleons lived on nothing but air, had said they can remain a long time without taking any thing but air, they would have been more in the right. When I made a tour in the country I recommended my collection of living animals to the care of my landlady; but she declared that though she would pay the greatest attention to all the others, she could not do it to the agammas or cameleons, being too much afraid of them; and as I could get no other person to undertake the office, after putting some insects into their cage, I left the further care of them to themselves; but though I was more than three weeks absent from home, I found the insects not eaten, and the cameleons in appearance as well as before. The long time they can abstain from taking food, seems to arise from the little nourishment which they, in common with all cold-blooded animals, comparatively require, thus losing no strength by perspiration. But as theameleon is a particularly slow animal, and living upon flying insects which it is not always able to catch, nature seems to have given it great command over the organs of digestion; when for some time it has had no nourishment, I could then observe not the least motion in those parts where digestion is performed, but as soon as it swallowed an insect its sides began to beat regularly; these parts, therefore, seem to be,

if I may make use of the comparison, like a mill, which stands still, without injury to its mechanism, when there is nothing to grind.

With regard to the change of colour in this animal, some learned naturalists have said, and particularly Mr. Hasselquest in his travels in the Levant, which I fortunately have with me, speaking of the African cameleon, says, "This animal is very subject to the jaundice, especially if it is made angry; it seldom changes, unless it is made angry, from black to yellow or greenish colour, that of its gall; which last being transmitted into the blood appears very plain, as the muscles of the cameleon and the skin are transparent."

But in the American cameleon this change of colour is certainly not owing to the jaundice, as it will shift from the dark brown into the most lively green, and quickly repeat these changes. Besides, the American cameleon has a greater variety of colours than Mr. Hasselquest has ascribed to the African, for he speaks only of a greenish colour, while the American has the most perfect colours of all the different shades of green. Its head, which is rather flat, I have seen sometimes of a faint blueish colour. It seems to me that the agamma possesses particular glands, some of which bring forth a separate coloured fluid, and those when pressed by the animal force up their moisture towards the interior parts of the transparent skin, so as to overcast the former colour, as the clouds pass over each other, and thus forming shades of different tints.

The brown colour seems particularly placed on the back, from which it proceeds to the sides and the head, and will even sometimes overspread the under part of the animal, which is in general of a white colour. The green always begins first to tint the sides, then proceeds to the head and back; the white of the belly will sometimes appear in different stripes on the sides, but never goes farther; there appears likewise a particular dark tincture on the sides, which contribute to the different shades of green and brown. The skin is very transparent, and has the appearance of parallel indentures running

transversely, but without any depression or elevation ; but I never could perceive any motion in the skin while it changed colour. The agamma sheds its skin several times in a year.

Another agamma which I got from the forest appeared very old, and it changed its colour very little.

The way of catching them is very easy—it is only to hold a stick before them when they are getting up a tree, and when they get upon it with an intent to pass over it, the stick is removed from the tree whilst the animal is watching in a posture of defence, to see whether it is about to be attacked by the person who carries the stick ; it can be easily conveyed home upon it, and I have done so several times. The negroes are so much afraid of them, that they will not catch them, otherwise than by throwing a sling over them, and securing them on a stick. I have likewise caught a very young one : it is of the most lively green, intermixed with a yellowish colour and white, but very seldom changes to a brown ; it is more tractable than the others, and will eat the flies which are thrown to it. I have given it to Mr. I. G. who wished to send it as a rarity to Barbadoes.

One morning I found in the cage where the cameleons are kept twelve eggs, each near an inch long, and about half an inch in diameter ; they are indented diagonally, and are of a very white colour ; the shell is like parchment, and pliable. I first left these eggs to see what the old ones would do with them ; but finding they took no care of them, I put some of them into a box of sand which I exposed to the sun ; but they never hatched, owing very likely to my not knowing the proper depth in which to place them.\*

\* Not to interrupt the history of the agamma I have to mention, that I took two of them with me in my voyage from Surinam ; and when they could no longer be fed with insects on board ship, I gave them some of the liver of fowls cut, so as to resemble worms ; but they never would eat otherwise, than by being fed in the manner which has been already mentioned, though they would drink, if a small bason with water was

Those who wish to take an agamma from South America to Europe, will do it best when they make the passage in the spring, and then the animal will live at least all the summer through in Europe; which may afford the naturalist and anatomist, sufficient time and opportunities for making observations and discoveries upon this singular creature.

I hope it will not displease you to have read so much upon this subject, considering that the camelon has been always esteemed as one of the most extraordinary animals in the creation.

Concerning birds and quadrupeds, I shall only mention in this letter, those on which I had a particular opportunity to make some observations.

In the wonderful chain of nature where the gradations of being proceed regularly from the meanest earth worm, to the beautiful butterfly, on which all the different shades of colour are so admirably dispersed, that it seems not to be excelled; yet to link them to the higher degree of the winged tribe, nature has created the humming bird, of which to give a just idea, the Indians, who pay little attention to the beauties of nature, call it *Colibri*, which implies the rays of the sun.

Among the many species of humming birds which are already known in Europe, there is one here which I do not recollect ever having seen, neither in any cabinet of Natural History, nor in the presented to them; one I lost in the passage, which was occasioned, as the mate said, "by one of the crew having tried his knife on him, and cut off one of his legs," the other I brought perfectly well to North America; and amongst the many gentlemen who wished to see it, one thought that he could explain the cause of the apparent change of colour before he saw it: supposing it to be nothing more than a reflection, like what appears in a looking glass; but when he saw how gradually the colours vanished from one to another, he expressed his surprise, and the insufficiency of his hypothesis to account for the phenomenon.

I brought this camelon alive to Lisbon, where it died a week after my arrival, when the weather became very cold in the autumn.

splendid works of Mr. Audebert. This I am speaking of is not larger than the smallest species of humming birds ; but it has a bunch of long feathers on each side of the neck ; this little creature is of a light-brown colour, and is covered all over with small round spots of a most brilliant shining green. There are only two gentlemen here, who are in possession of this species ; Mr. K—m—n the British post-master has one, and Mr. L—k another, and both were brought from the most interior parts of the colony by Mr. Bauer, who carries on a traffic with the Indians, and if he can possibly obtain another, he has promised to let me have it ; therefore till then, be so good as to accept of the drawing of it in its natural size and colour, which I shall send with this letter, and as the species has not yet been named, I call it the *Argus collibri*, the spots on its plumage appearing as bright as so many eyes.

It is a prevalent opinion in Europe, that whilst the countries under the Tropics possess a great many elegantly coloured birds, they are in want of fine songsters ; but this must be taken with a limitation. It is true that in this country nature observes the same rules as in other regions, by denying a fine voice to most of those birds which are splendidly dressed, while she has given to those of a more simple robe, great musical talents. The little bird which I have already had occasion to mention as nestling under my roof, and called by the negroes Goda bird, has a most delightful song. The South American mocking bird is of the same species as those of North America, which is in such high reputation for its charming notes ; and the Moravians say, that in the interior parts of this colony there is a fine singing bird, which they prefer to any they ever heard, even to the European nightingale ; there are also several other species of small birds, whose song is very harmonious.

Amongst the remarkable birds is the rook of Surinam ; it is of the same size as that of Europe, but of a more slender shape ; it is black, with a gloss of shining greenish blue ; its bill is strong, the

upper mandible is considerably arched, and forms on the top along the bill a sharp edge. This bird lives on snakes and other reptiles ; but what is very curious, it is said that five or six females will build a nest together, about sixteen inches wide, and there deposit their eggs, hatching them in conjunction.

Of the fine feathered birds, the parrots and paroquets are the most distinguished, and there are many different species of these. If indeed what was related to Mr. de la Condamine, when he made his voyage in South America be true, that the Indians possess the art of altering the colours of the paroquets, then their variety must be still greater : it is said that the Indians pluck off the feathers of the parrots, and rub the place with the blood of a certain species of frog, and that the new feathers become of a quite different colour from the former. Many persons who have read this account, and afterwards came over to this colony, are of opinion, that the Indians may use the same imposition here ; but if this was the case, by the next moulting the feathers of the birds would be of the original colour. However no one has ever seen such an alteration take place. A Dutch lady here has a parrot of a bright yellow colour ; but the top of the wings is of a dark orange ; of this parrot, I was told that the old ones were green, and that another young parrot, which was nestling with it, was also green. This, which the lady has already kept for many years, has never changed its colour ; now, if the Indians knew how to give parrots this colour, they certainly would more frequently make use of their art, as this parrot has been sold for a very high price. The conclusion which may be gathered from this is, that the difference of colour does not always prove the parrot a distinct species. The South American cockatoo is of a fine green colour, with a white head, but rather of a brownish shade, and has on the neck crimson feathers, with light blue edges ; these feathers the bird erects when in anger, for which reason it is here called the cockatoo. The Count de Buffon, who calls this parrot the

Maipouri, supposes that this bird is not originally of America, but that it was brought over hither from the East Indies. If this is to be admitted, it must seem very extraordinary that this bird should have become so common in many of the different parts of South America. They are also very numerous here in Surinam, but are frequently shot, being seldom kept for pleasure, as they do not learn to talk, and are said to die soon in confinement. On the contrary, the gray African parrot, which so much resembles it, is greatly esteemed here for its talents in speaking, and is therefore frequently brought over to this colony by the Guinea ships, but is never found here in a wild state.

The smallest species of paroquet here is the grass paroquet, so called from its principal colour, which is a light green. The male has also some light blue feathers on the upper part of the wings; but the interior part of them is of a fine ultramarine blue. The female is of an elegant green colour, touched or set off with yellow; and it has likewise some yellow coloured feathers in the wings; the bill and feet are white, the eyes a jet black. They fly in flocks, and it is said, that ten eggs are often found in their nests. It seems extraordinary that one female should breed up so many, and perhaps several females hatch in company as the rooks here do. I have got one pair, and two more are promised me, as I wished to make a trial whether they will breed in a large cage. They are smaller than the green parrots of Africa with red heads, and are more slender and elegantly shaped, surpassing them even in attachment to each other; a greater harmony cannot, indeed, exist, as nothing is done by the one but the other does the same: they eat together, bathe together, and chat together; if one becomes ill it is nursed by the other; but if one seems only to be dull the other will tease it, to raise its spirits. One day the person who had the care of feeding mine broke the door of the cage, and the female, frightened by it, escaped out of the window. The son of my landlady assures me

that he knew them well, and that the fugitive would rather die with hunger than leave the place where the other was ; and indeed I heard her the next morning continually about my house ; on which I sent for a bird trap, and putting it in the tree by the side of the cage containing the male, she came on it immediately, but as it was not well set, it fell down before she could get in. I therefore ordered a person to take the trap down again ; but when she saw the male removed, she flew upon the cage, and suffered herself to be taken by the hand ; and it certainly was very pleasant to see the meeting of the pair in the cage.\*

I proceed now to the various kinds of quadrupeds, amongst which one of the most curious is the Sloth. There are two different species in this colony : the first has the name of the three-toed or sheep sloth, from its having curled hair. The second is the dog sloth, which has long hair, and a pointed nose.

The three-toed sloth is the most remarkable in shape as well as action ; they grow in size about two feet, and are of a clumsy appearance. The head, which is small in proportion to the thickness

\* I took these birds with me from Surinam, and they endured the voyage, as well as my stay in North America, very well ; but on my passage to Lisbon, in a heavy gale of wind, the little box where their food was fell upon the male and bruised him so much that he died in a few days ; and though I put a small looking glass into the cage to see what effect it might have on the female, she soon seemed to discover the deception, and having lingered for some weeks, during which she eat but little, she literally died of grief. I confess, that I was much hurt, not only as I intended them for a present, but also on account of my regard for the unhappy creature, which might have lived at its ease in the forests of Surinam if she had not returned voluntarily to her male again. Had the ancients been acquainted with these affectionate birds, they would probably have represented them as yoked to the chariot of Venus, instead of the doves, which were consecrated to her service. Mutual affection between the two sexes we find, indeed, among all the tribes of animals, but such a constant attachment, when actually separated from each other, is certainly very rare. These paroquets, therefore, are most deserving of the distinction of accompanying, as a happy presage, the genius who kindles the fire on the altar of Hymen.

of the body, is roundish, with a blunt nose. The eyes are small, round, and black; the ears are also small, lying flat to the head and entirely hidden by the hair which surrounds the head, and points towards the forehead: the fore legs are not so long as the hind ones, and the feet of both have three toes, which terminate in very long and strong claws. This animal is of a light gray colour intermixed with some darker hair; but when it grows larger, it is often found marked on the back towards the shoulders with a large spot of an orange colour, surrounded with black hair, and a black stripe passing through the middle. The tail is very short.

Dr. Fermin says, in his description of the sloth,

“It must have infinite time to mount the tree; every movement it is obliged to make costs it many cries; it rests every moment, and if once it gets up a tree, it does not get down again until there are no more leaves; when pressed by hunger, it thinks of getting to another tree, but employs so much time in getting down, and looking out another tree for its habitation, as to become extremely meagre before it has found what is necessary for its sustenance. It must have at least two days to get up a large tree, and as much to get down; it hardly makes fifty paces on the ground in the course of the day. The juice of the leaves is sufficient to quench its thirst; and it has a voice as clear as a kitten.” The Count de Buffon from reading such a description made in the country where this animal exists, and perhaps receiving one of this species which had suffered much in the passage, formed the opinion, that this animal was only created for misery. But if this great naturalist had been able to observe them in the country of which they are natives, he would have seen reason to judge otherwise. The sloth, existing in the same climate where the most lively animals are, is amongst the many proofs of the wonderful wisdom of the Author of nature; for while these animals exhibit a picture of despicable laziness, their

organization is still so admirably formed as to make them no more unhappy than any other beings in the creation. The strength of their legs exceeds that of any known creature of the same size, and this becomes more powerful as the large claws are not interrupted with long toes; and the sloth fastens itself on the trees, as it were, with flukes of an anchor. The colour and even the shape of the hair are much in appearance like withered moss, and serve to hide the animal in the trees, but particularly when it gets that orange coloured spot on the shoulders, and lies close to the tree; it looks then exactly like a piece of a branch where the rest has been broken off, by which the hunters are often deceived; its ears lying flat and being covered with thick hair, prevents the animal from being disturbed by any noise while asleep in the day time; the hair that grows from all sides to the forehead keeps off the penetrating rays of the light from dazzling the eyes; its food consists in the leaves of the trees, and as it does not consume much, and vegetation here is speedily restored, it may find in one tree almost enough for its whole life, and perhaps has seldom occasion to make a distant excursion, except in search of a female; during that time they are able also to abstain several days from any nourishment without experiencing the least inconvenience. Therefore, it cannot be justly said that this creature is deficient in comforts, or that it was created to be miserable. Man, indeed, who is created for an active life, when he neglects or perverts his faculties, may be said truly to become an object of misery.

In regard to many evils, as Buffon justly observes, "The animals in general are more happy, because their species have nothing to fear from its individuals; to them there is but one source of evil; to man there are two: moral evil, of which he himself is the fountain, has accumulated into an immense ocean, which covers and afflicts the whole surface of the earth. Physical evil, on the contrary, is restrained within very narrow bounds; it seldom appears alone, for it

is always accompanied with an equal, if not superior, good. Can happiness be denied to animals, when they enjoy freedom, have the faculties to procure subsistence with ease, and possess more health and organs capable of affording greater pleasure than those of the human species? Now, the generality of animals are most liberally endowed with all those sources of enjoyments; the degraded species of the sloth are perhaps the only creatures to whom nature has been unkind, and who exhibit to us the picture of innate misery." But in the last opinion, that the sloth should not have a share in the bounty of nature, I cannot agree, and have endeavoured to assign reasons for my dissent.

I have kept several sloths here, and though they are the most inactive quadrupeds known, yet they are not so in that extreme degree which they are in general supposed to be. The fact is, the sloth is a nocturnal animal, and is extremely displeased when disturbed in the day time, and, therefore, it conducts itself then very awkwardly; but I have seen one getting up a pretty high tree in the evening, in doing which it did not exceed ten minutes; neither did it, as Dr. Fermin says it does, upon exertion, make any noise. They carry their young on their backs, and their favourite food consists of the sapadilla leaves, but they refuse all liquids.

I have had two little ant-eaters or fourmilliers, which were not

\* Les animaux sont en général plus heureux, l'espèce n'a rien à redouter de ses individus; le mal n'a pour eux qu'une source; il y en a deux pour l'homme; celle du mal moral qu'il a lui-même ouverte, est un torrent qui s'est accru comme une mer, dont le débordement couvre et afflige la face entière de la terre; dans la physique, au contraire, le mal est resserré dans des bornes étroites, il va rarement seul, le bien est souvent au-dessus, ou du moins de niveau: peut-on douter du bonheur des animaux, s'ils sont libres, s'ils ont la faculté de se procurer aisément leur subsistence, et s'ils manquent moins que nous de la santé, des sens et des organes nécessaires ou relatifs au plaisir? or, le commun des animaux est à tous ces égards très-richement doué; et les espèces disgraciées de l'Unau et de l'Ai, sont peut-être les seules que la nature ait maltraitées, les seules qui nous offrent l'image de la misère innée. *Histoire Naturelle par M. le Comte de Buffon, Tom. 26. ed. 1766.*

larger than a squirrel; one was of a bright yellow colour, with a brown stripe on the back; and the other was of a silver gray, and darker on the back; the hair of each was very soft and silky, a little crisped; the head is small and round, the nose long, gradually bending downwards to a point; it has no teeth, but a very long round tongue; the eyes are very small, round, and black; the ears small, covered entirely over with fur; the legs rather short: the fore feet have only two claws on each, the exterior claw much larger and stronger than the interior, which fills exactly the curve or hollow of the large claw; to the hind feet are four claws of a moderate size; the prehensile tail is longer than the body, and it is thick at the beginning and tapers much to the end; the point on the under side for some inches is bare. This little animal is called at Surinam "Kissing hand," as the inhabitants pretend it never will eat, at least when it has been caught, but that it only licks its paws, in the same manner which has been said of the bear; that all the trials to make it eat have proved in vain, and that it died very soon in confinement. When I got the first, I sent to the forest for a nest of ants, and during that time I put in its cage some milk, honey, eggs, and meat; but it would touch neither. At last the ant's nest arrived, but the animal did not pay the least attention to it. By the shape of its fore paws, which resemble nippers, and differ very much from those of all the other different species of ant-eaters, I thought this little creature might perhaps live on the nymphæ of the wasp, &c. I therefore brought it a wasp's nest, and then it pulled out, with its nippers, the nymphæ from the nest, and began to eat them with the greatest eagerness, sitting in the posture of a squirrel. I shewed this to my landlady, and to many other inhabitants, who all assured me, that this was the first of that species of animal they had ever seen take any nourishment at all, and, therefore, they thought it ought not to be called any longer "Kissing hand". Should more experiments prove that this

animal does not live upon any sort of ants, the name by which it is distinguished in natural history should certainly be also changed. The ants with which I tried it, were the large white ones, of the genus of termites, and on which the fowls are fed here.

As the natural history of this pretty little animal is not much known, I thought of trying if they would breed in a cage ; but when I returned from my excursion into the country, I found them both dead, perhaps occasioned by the trouble given to procure the wasp's nests for them, though they are here very plentiful ; wherefore I can give no more description of them, than that they slept all the day long curled together, and fastened by the prehensile tail, to one of the perches in the cage ; when touched, they erected themselves on their hind legs, and with their fore paws struck at the object which disturbed them, like the hammer of a clock striking the bell, with both paws at the same time, and with a great deal of strength ; they never attempted to run away, but were always ready for defence when attacked ; and as soon as evening came they awoke, and with the greatest activity walked on the wire of the cage, though they never jumped, nor did I ever hear their voice.

The paca is called at Surinam a hare, to which it has not the least resemblance ; but rather may be classed with the guinea-pig. It is very accurately described in Buffon's Natural History, except, as Capt. Stedman observes, that the Count thinks it is an animal of slow motion, whereas in its native country it is lively : but such mistakes may happen to the best naturalists, as they often receive animals, which, during the voyage from different countries, have lost much of their spirits and action. The Count is very right in recommending the paca to be introduced, and domesticated in Europe, as an addition to our game, and affording a most excellent dish ; but it is difficult to get them here alive, as they make their habitation under ground, and mostly near the rivers, into which they plunge, and it is said, they continue under water whilst

pursued; it is very swift in all its motions, and searches for its food, which consists of vegetables and fruits, only at night; besides, the hunters know that if they shoot it, they will be able to sell it for as much as if it were alive, its meat being here considered as very delicate.

However I have got at last a living young one; it is about a foot long; in shape it resembles nearest the guinea-pig, as I before observed, except that its legs are in proportion longer; its hair is of a fine chesnut colour, and sprinkled with white spots, the belly is entirely white; the animal keeps itself very clean, and is become quite tame; but as I have not been able to procure a female for it, I have therefore given it as a companion one of the cavey species, which is called here coney-coney, and it is said they will sometimes breed together; but the meat of the latter is not so well flavoured as that of the paca. The cavey resembles the paca, but is of a more slender shape, and a wilder disposition; it lives in general in hollow trees, and seeks its food in the day time, and is often caught by the Indians.\*

I now proceed to the genus of quadromanes, which the vulgar behold as so many comic performers, merely created for their amusement, though they present very interesting, and serious observation to naturalists and philosophers.

Linnæus has decidedly classed them with the human species; and though the Count de Buffon very properly refuses to go as far as this, yet he declares "it to be the most singular animal, and which man cannot see without observing and recognising himself,

\* When I left Surinam, I took these two animals with me, and the box they were in being too much exposed to the sun, the captain promised to remove it in half an hour, but before that time, the paca fell into convulsions, and died soon after. The paca cannot endure any great heat, as it is a nocturnal animal, and therefore never exposes itself to the sun. I mention this, that if any other person should wish to take a pair to Europe, he may be better able to provide against this accident.

and without being convinced that the human body is not the principal part of his nature." It is true in his observations on the Oran-otang he has given, with respect to intellect, the preference rather to the dog; but this great naturalist could not make an impartial investigation, as only two oran-otans were brought to Europe, and they had not yet reached their full growth, had suffered much by the change of climate, and were even in a bad state of health: whilst the race of dogs has been much improved by the care of man from the earliest period of time, so that among their great number, it is no wonder examples of their sagacity are easy to be found. But we should not see proofs of this in the dog chained up, as was the case with the two oran-otans, who were closely and constantly confined, and yet still gave extraordinary indications of intelligence. It is true that in a great part of their manners they were instructed; but, still they showed many actions which were natural to them, and equally proved their great sagacity; it may therefore be supposed, that where the organization is so near to the most perfect, or the human body, the intellect must likewise be of a superior kind to what is possessed by other animals; and this is confirmed by Monsieur Relian's letter from Batavia to Professor Allamand: "The name of wild men is given to them (oran-otan) owing to the likeness they bear externally to the human species, particularly in their movements, and in their manner of thinking, which is certainly peculiar to them, and which cannot at all be remarked in other animals; for this is entirely different from that instinct more or less developed, which is perceived in animals in general."\*

\* Le nom d'*hommes sauvages* qu'on leur donne leur vient du rapport qu'ils ont extérieurement avec l'homme, sur-tout dans leurs mouvemens, et dans une façon de penser qui leur est surement particulière, et qu'on ne remarque point dans les autres animaux; car celle-ci est toute différente de cet instinct plus ou moins développé qu'on voit dans les animaux en général. *Supplem. Hist. Nat. M. le Comte de Buffon, ed. Paris, 1789, 8vo. p. 13.*

Now, since Dr. Tyson has observed, that Galen recommended the dissection of the quadromanes, with a particular regard to their affinity with the human species, as being more useful than that of any other animal, so it cannot be less interesting to the naturalist and philosopher, to make researches, how near to the human understanding, the highest degree of natural instinct may advance, and to observe this through the various gradations of the different species of quadromanes. On this subject I shall take the liberty of extracting a passage from Professor Allamand's addition to Buffon's natural history: "Monsieur de Buffon suspects that there is some exaggeration in the account of Bontius, and some little prejudice in what he relates of the marks of intelligence and modesty of his female oran-otan; however, what he says is confirmed by those who have seen this animal in the Indies; at least, I have heard the same account given by several persons, who had been at Batavia, and who certainly were ignorant of what had been written by Bontius."\*

A similar action to that which probably gave rise to this opinion of the modesty of the female oran-otan, I saw done here by a sapa-jou; it could not however be attributed to any natural sense of shame in the creature, but had evidently the appearance of that kind of mechanical motion, in which we frequently see other animals instructed, though done with more expertness and sagacity. Some more observations on the natural history of this country, I shall take the pleasure to send you at another time.

\* M. de Buffon soupçonne qu'il y a un peu d'exagération dans le récit de Bontius, et un peu de préjugé dans ce qu'il raconte des marques d'intelligence et de pudeur de sa femelle orang-outang; cependant, ce qu'il en dit est confirmé par ceux qui ont vu ces animaux aux Indes; au moins j'ai entendu la même chose de plusieurs personnes qui avoient été à Batavie, et qui sûrement ignoroient ce qu'en a écrit Bontius". *Supplement à l'Histoire Naturelle de M. Buffon, ut supra.*

## LETTER XVII.

*Departure from Surinam.—Voyage.—Arrival at Providence, in the United States.—Tour to Boston, and return to Providence.—New York.—Philadelphia.—Baltimore.—City of Washington.—Alexandria.—Mount Vernon.—Return to Philadelphia, and to New York.—On the Yellow Fever.—The National Character of the Inhabitants of the United States.—Departure for Europe.—Arrival at Lisbon.*

MY DEAR SIR,

*Paramaribo, June 1st, 1807.*

THE many disasters my native country is suffering under at this time, in consequence of which all correspondence from thence to this part of the world is entirely interrupted; together with the great distance, which contributes much to multiply the exaggerated reports, that form here the topic of all conversation; my consequent distaste for society; the finding no more relief in my once favourite walks, which now seem to be overspread with a mourning veil, all induce me to return to Europe; for cheerfulness, the principal cause of preserving health in this climate, is entirely banished.—I have therefore come to a resolution to return with the first convenient opportunity; but it is necessary, to avoid the risk of being taken again in the course of the voyage by a privateer, to wait for a neutral vessel; and there are none other here but Americans returning to the United States. I have however received many cautions on this point: it is said “that the captains trading from that quarter, often take a number of passengers who are considerably drained in their fortune, and whom some of them consider nearly equal to a cargo of negroes; besides, from the high idea they

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have of their own freedom, they are apt to encroach very much on the liberty of others, and to behave rudely to their passengers; all which has brought them into bad repute, much to their own disadvantage." I for my part have made but one passage in an American vessel, and that was with Capt. Loring, a native of Boston, who was as social and civil a man as I could wish to sail with, and his fine ship, the Vulture, was provided with every possible accommodation for passengers; yet, according to many reports, it seems very necessary to obtain at first particular information of the character of these captains, before any agreement is entered into with them.

It has happened therefore very fortunately, that the brig Vesta was about to sail from hence to Providence, in the United States. The master, Captain J. Petty, has been for a number of years a trader to Surinam; and stands in high reputation here, so that we soon agreed for the passage.

On the seventh of June we sailed from Surinam, to which country I shall always be attached, where nature is so splendid and profuse in her productions: my health has been much improved, and the inhabitants have shewn me the greatest civilities. Several of them endeavoured to persuade me to stay a year longer in South America, as they thought I was about to expose myself too soon to a cold climate again: but when they saw that I was determined on the voyage, they sent me a number of the choicest tropical fruits, expressing their wish to contribute to the comforts of my passage.

The captain proved of a very amiable disposition, and I had every reason to be pleased with the recommendation I had received of him: there was but one more passenger, who had been a super-cargo in an English ship coming from Monte Video; but he had staid there all the time on board of his ship, and sailing as soon as the cargo was sold, he could therefore give no description of that interesting country.

Our voyage, though nothing interesting has happened, has been very favourable to our passage, as during the twenty-six days of our being at sea, we experienced not a single interruption in our course, neither by heavy gales, nor dead calms, nor did such heavy rains fall as to keep us long from the deck. On the third of July, as we were entering the bay of Naragansett, on which the town Providence lies, the captain pointed to the north, where thick clouds were gathering, and said, "Just in time, we are now at our journey's end."

When the *Vesta* came to an anchor, we were informed by several American gentlemen who came to visit us, that though it was at present the season for the ships to ride quarantine, yet as we came from a place where no contagious diseases prevailed, and the doctor having gained every necessary information on the subject, we should not be detained any longer on board; particularly as the next day was the fourth of July, the celebration of the anniversary of American independence, which we very likely would wish to see. Dr. Mason was at the same time so obliging as to direct me to the best tavern in this town, and to invite me the next day to see a part of the procession from his house.

On the fourth of July in the morning, the colours of the United States were displayed in many of the principal streets, accompanied by bands of music. The procession began by the militia; they were well and uniformly dressed, and the cavalry had good horses, which is all that could be judged of them that day. The magistrates, and all those in public offices, joined the procession, and went to the new church, where a sermon of thanksgiving was delivered; and the rest of the day celebrated in convivial meetings. In the evening a tragedy was performed, the subject of which was *The Death of Major André*, and though not very striking in theatrical beauty, and rather indifferently performed, was still much applauded by many, as they found it analogous to the day, whilst others were making observations that a tragedy should not have been given at such

a time, though it was taken from an event in their history, necessary and justifiable in itself, yet it was one which was not executed without exciting much compassion; and those persons, therefore, rather chose to pass the evening in a social patriotic society. Though the most of these jovial festivals lasted to a very late hour, and many of the different classes of inhabitants contributed a liberal and spirited libation, in commemoration of the remarkable event, there was not, however, the next day any report of the least unfortunate accident which happened.

The town of Providence is situated in Providence plantation, in the state of Rhode Island: it has a pleasant aspect, the streets are proportionably wide, and the houses neat; giving a happy characteristic of the inhabitants, who seem to be equally distant from meanness and luxury. There is nothing remarkable in the public buildings; some of the churches have fine steeples, but are built of wood; many of the country houses in the vicinity of the town are very elegantly built, but most of them are likewise of wood; those which are situated on the surrounding hills enjoy a beautiful view of Naragansett bay, while others are remarkable for their fine gardens. The soil near the town is a light sand. I have seen here very few corn fields, the rest mostly consists of meadows, which are said to yield a ton of hay per acre.

The exports of Providence, as well as of the rest of Rhode Island, consist of goods brought from Massachusetts Bay and Connecticut, and some other states; they send also a good breed of horses and mules to South America and the West Indies. There has also recently commenced here a trade to the East Indies, which has proved very advantageous.

Although my letter of credit which I had from Europe, was for New York, yet as I had no expectation of touching at Providence, I was not furnished with any letter of introduction for this town: however, Mr. J. Tillinghast, to whom a part of the cargo of the Vesta

was consigned, though he did not know H. Th—, Esq. at New York, to whom my letter of credit is directed, supplied all my pecuniary wants, and we have since recognised each other. It was about seven years ago, when I arrived with Capt. Loring at Gibraltar, that he visited the captain on board, to enquire the news; but though probably we were not at that time in company together above half an hour, yet Mr. T's. behaviour could not have been better if we had been very old friends. He has behaved to me with the greatest hospitality, and Dr. Mason likewise shews me much civility; and though it seems that his income is not equal to his merit, he is happy in his domestic concerns; the father of a large family; his children are all daughters, and they confirm much the deserved reputation in which the fair sex of Providence are held. I have also visited the worthy Capt. Petty, who is likewise happily married, but he has no children, and enjoys a comfortable fortune; so that it is not to increase it that he goes sometimes to sea, but from choice. I could not help remarking to the captain, that I never had been in a ship, where there was more order, combined with the greatest good will, chearfulness, and sobriety, among the crew; Dr. Mason, who heard this, replied, that he was glad of the testimony which I had given, and said, that these sailors were all the younger sons of very good, though not wealthy, families, and who have each a proportionate share in the cargo of the vessel; and by this means they learn navigation, and become afterwards good supercargoes, increasing their fortunes by degrees. I had an opportunity of meeting them here very genteely dressed, and going into good company.

The news here from Europe confirm the expectation of an approaching peace on that continent: I am, therefore, the more anxious to get to New York, where some letters for me may have been directed; but as Boston is only forty-five miles distant from Providence, and as I was not certain whether I should have afterwards so good an opportunity again, I resolved to go there for a day,

which I was told is sufficient to see every thing remarkable in the town. I took, therefore, a place in the Boston stage coach, which is very neat, and has the appearance of an English sociable, open on the sides, and decorated with silk fringed curtains; if it happens to become rainy, then oil-skin blinds are let down. The coach goes on springs, and our nine passengers were seated very comfortably. The road here is very good. Patuxent-bridge is the first remarkable place; it lies five miles from Providence, and contains several manufactories, but there was no time allowed the passengers in the coach to see them, which makes this method of travelling by a public stage so very unpleasant; and should I find it advisable on my arrival at New York, to make a general tour through the United States, I would rather prefer going on horseback, than being hurried in this manner through the country. The nearer we approach to Boston, the more the villages have an appearance of opulence; but it is surprising to see in the orchards the fruit trees almost covered with large nests of caterpillars, of which they easily might be cleared. Much Indian corn is cultivated in this part of the country; the inhabitants make bread half of Indian corn and half of rye, of a very good taste, and which must be as nourishing as it is agreeable.

When I arrived at Boston, I delivered the letter of introduction, which Mr. T. had been so obliging as to provide me with, to one of the most respectable houses here in the mercantile line. This gentleman, when he learnt I was so much pressed in point of time, was so good as to accompany me to the principal buildings in the place, of which the most conspicuous is the state-house, lying on an eminence, and ornamented with a large dome, which gives a grandeur to the appearance of the town, although perhaps an architect might criticize its different proportions. From the dome is enjoyed a most extensive view. The town of Boston appears on an isthmus, and is situated on different eminences; in the surrounding

valleys a few streets are regularly built, and there are many handsome houses.

The harbour is said to be about six miles wide, and runs about four miles inland, surrounded by many small islands, forming several beautiful eminences: between Governor island and Castle island is the grand entrance of the harbour, which is esteemed about half a mile wide. Before the state-house is a public walk, shaded with large trees, and where the troops parade. Though this pleasure ground is of a considerable extent, and in a situation where many persons wish to have houses built, so that very high offers have been made for the purchase of the ground, yet they have always been refused by the government, in order to keep the place open for the benefit and health of the public.

At the University of Cambridge, near Boston, a considerable library in all branches of sciences has been collected; but the museum of natural history is very indifferent. I was assured, however, that there is a very interesting cabinet at Salem; the principal merchants, and many captains in that place, trading to the East Indies, who are subscribers to it, having vied with each other in their endeavours to procure the most curious specimens for it; but many considerations prevented me from going thither.

In the afternoon the friend of Mr. T. in a very elegant chaise, took me to the environs of the town, which are very pleasantly variegated by many considerable villages, and fine country houses. We stopped at Bunker's Hill; and as this gentleman was well informed of every spot where the action had been fought, I obtained a very interesting account of it from him. On the eminence is erected a monument, by the Solomon's lodge of Free Masons, in memory of the battle.

The long wharf at Boston is reckoned to be seventeen hundred and forty-five feet, running in a straight line into the bay, and on this wharf are eighty large store-houses, all built of wood, and

covered with shingles, a kind of wooden tile. This must be very perilous where such quantities of mercantile stores are constantly exposed to the danger of being destroyed by fire ; but the cheapness of timber tempted the first settlers to risk this hazard ; however, of late they begin to build with bricks. The wooden draw-bridges by which Boston is connected to the continent, are very remarkable ; the one leading to the village of Charles Town, is fifteen hundred feet long and forty-two feet wide, where it is said to have been at the lowest ebb twenty-eight feet depth of water ; and the flow of the tide is from twelve to sixteen feet more ; this bridge has, besides, resisted the shocks of considerable shoals of ice, sometimes of three and four feet in thickness. A similar bridge stands between Boston and the village of Cambridge, and which is said to be near a mile long. The architect is Mr. Cox, an American, who has improved his genius by the study of nature ; his principle, in these sort of buildings, is to support the bridges with numerous, but slender, piles, leaving a proportionate vacancy between them to give as little resistance to the power of the passing flood as possible.

From all that I had seen in Boston, I felt a regret at not being able to stay a few days longer there ; for though I saw the town and its principal buildings, yet I had little or no opportunity of observing the customs and character of the inhabitants. On these occasions a traveller is often tempted to make what occurs to himself the characteristic delineation of the general manners, though what he saw or experienced might be merely accidental. In the morning when I went out, I saw a gentleman passing a court from which a driver was just starting with his cart, and as the horse was near running against him, he waved his hand to prevent it, but he was very roughly abused by the carter ; and when I took a ride with the friend of Mr. T—, who was driving, as we passed over a bridge which was near half a mile long, another driver of a cart with a heavy load, would not let us pass ; and still whatever side we tried he turned

his horses in order to block up the way ; at last, by a manœuvre, we got clear of him, when the gentleman with me gave a lash to the horses of the carter, saying to me, that on such an occasion he rather wished to see it applied to the driver ; and he was not backward in confessing that such occurrences happen very frequently at Boston.

As the coach for Providence sets off from hence before day break, I wished to retire soon, but though I had been directed to the best hotel at Boston, they could not give me a separate bed-room ; and when I told the landlady that I would then try some other house, she replied, that there perhaps I should find the rooms occupied by three or four gentlemen together. Having, therefore, little chance of bettering myself, and being much fatigued, I went to bed : as I was obliged to leave my door unlocked, in the middle of the night I was awakened by the light of a candle, and perceived two gentlemen standing before the bed, who told me, that as they had heard I only travelled for pleasure, and they had some particular business to do at Providence, but had found that all the places were taken except one in the coach, begged to know whether I would decline my seat : when I replied, as it was not very pleasant to travel by night, they might have considered it was not very likely to be merely for pleasure I had chosen to set off at that time, and therefore I must have some particular reason for so doing, which might have saved them the trouble of calling on me at such an hour, especially as I could not possibly grant their request. A new play which was to be performed the next day at Providencē, and at which they expected many spectators from Boston, was very likely the great business these two gentlemen had to do ; at least their age and garb rendered this idea very probable. Being once disturbed from my rest, and fearing that the two eager travellers might try some other means to get my seat, I soon got up, and went to the house from whence the coach started much before the fixed time.

On my return to Providence, I set off the next day for New York in a packet, which was as handsome as any in Europe. It had a double row of births on each side made of mahogany, and three separate cabins, and the furniture very neat and clean : we had plenty of good provisions and a pleasant company. Before we got down the bay the boat grounded, and some of the passengers suspected that the captain had done this on purpose, to delay time for the coming of another mail which he was expecting ; however we reached Newport before dark. This town is more ancient than Providence, and the principal one in Rhode Island ; the harbour is spacious, and secure, and vessels have a much easier access to it than to Providence ; but as the latter town has more wealthy inhabitants, the commerce carried on there is more extensive and important. The winter is said to be at Newport exceedingly unpleasant, and the air very keen, so that many young persons die here of consumption ; this, perhaps, and the consideration that the town is more exposed to the attack of an enemy by sea than Providence, has contributed to the greater population of the latter place. Newport on the whole has but a mean appearance.

The land round Newport is very destitute of trees, though it is said that many fruit trees were consumed by fire, during the last war ; but considering the length of time since that event, the inhabitants might have planted others ; it is said however that agriculture is here greatly neglected, the people of Rhode Island in general preferring a seafaring life.

The packet passed through the Sound of Long Island, which forms a channel of near one hundred miles ; but no remarkable fine prospect appeared, and I was very sorry that it grew dark before we made the latter part of our passage, as, according to every description, it is there the most cultivated part of the island lies.

As soon as I had taken a lodging at the largest hotel at New York, I asked for the directory book, to look for the lodging of

H. Th—, Esq. but no such name was to be found: I next went to Mr. Wheaton, to whom I had a letter of introduction from Mr. Tillinghast; he received me very politely, but when I enquired of him for Mr. H. Th—, he told me he did not know any such person, but would enquire after him. Notwithstanding all the trouble which Mr. W. was so good as to give himself about my concern, his enquiries were without any effect: I went to the post-office, and to several other public places, but all my researches were in vain, and I found myself in the most unpleasant situation I ever had been in the whole course of my travels: this too in a country where I was entirely unknown, and at a time when the affairs of my own country made it suspected, that many adventurers would flock to this country; besides this, the misunderstanding which prevails amongst the principal maritime powers and the United States, makes it every moment expected that the correspondence with this country will be entirely interrupted; all these considerations added much to the gloomy thoughts with which I have been so much affected of late. Mr. W. told me that this letter of credit was a most unfortunate circumstance, that it would have been much better for me had it been lost before it came to the country; but how a mistake could have happened in a matter of such importance as a letter of credit, created many unfavourable observations in those to whom he had spoken about it. I answered that I was aware of all this, but that as it was no fault of mine, I had nothing to reproach myself with; and should therefore prepare for any critical situation, which now for a while might happen to me, being perfectly persuaded that at last it could not end in my disgrace. Mr. W. said he would not suffer it to come to any extreme, having the utmost confidence in me, and that he hoped at last we should find out this Mr. H. Th—, for which I employed every day a part of my time, and the other part in the inspection of the town.

New York is very pleasantly situated between Hudson's river and

East river, on the island of Manhattan, which island is said to be about fifteen miles long, and about three wide; the circumference of the town is esteemed to be about five miles; the new streets are all very regularly laid out; Broadway is seventy feet wide, and more than a mile long, with very fine houses. Trinity church is built in a tolerable imitation of the Gothic style. St. Paul's church has a handsome steeple; but it is rather large in proportion to the church. The other principal public buildings are, the college formerly called King's college; but since the revolution, named Columbian Hall, the Federal Hall, the Bank, &c. The new theatre since the last improvements has not yet been opened, and the museum of natural history is very imperfect. The person who gave an account of the museum, shewed, as the greatest rarity, a pair of pretended male and female oran-otans stuffed, and the name written with large letters on them: he was much surprised when some doubts were expressed that these were not real oran-otans; and in telling him that this matter could be soon decided, as they seemed to be quatas of South America, of which the tails had been cut off, and which species has but four fingers on the fore paws, whilst it is known that the oran-otan has five fingers. The person took one of the animals down in a moment, and found it had really but four fingers; he declared it was an imposition of the person who had sold them for oran-otans to the cabinet. The species of oran-otan, which every cabinet wishes to possess, is however to be found in very few European collections, whilst those again who travel in the countries where they are to be found, deceive themselves very often. However, the oran-otan is distinguishable from all the other species of animals of the quadromanes, by the globular form of the forehead, which brings them nearer to the human species, but from which they likewise differ most obviously, as they are four handed, whilst the human species possess two feet and two hands.

As many naturalists are displeased with the name of oran-otan,

which signifies a wild man, perhaps it would be better, since this species differs remarkably in many respects from all other animals, to give it the name of mock-man. There is in this museum a collection of good preserved birds from Cayenne, and some rare species amongst them.

There are at New York four market houses, well supplied with all sorts of provision; but they are rather too much confined. Many of the streets in this town have a row of Lombardy poplars on each side; and indeed there cannot be found a better species of tree for this climate, as they afford a sufficient shade to the foot-path, and their branches do not extend too much to make the houses humid in the rainy season; besides, their pyramidical form accords well with the regularity of the streets. There are two public walks here, one called the Park, which is situated on a large triangular plain, laid out in formal walks of trees, and enclosed with iron railing. The other public walk is called the Battery, which it was formerly; but it has since been reduced, and for its most beautiful situation, is become the favourite walk of the inhabitants of this town; it enjoys a most extensive prospect over the Hudson river, and of several small islands, with the opposite shore stretching to the sea, where the view is constantly enlivened by the vessels coming in and going out. It is observable, that though the Lombardy poplars answer very well when planted in the streets, yet they are not so proper for public walks, as they are here used; and where more shady trees, and a greater variety of vegetation, are required to produce a nearer resemblance to the forest scenery of nature, and for the pleasantness of sight. For such a purpose they could be at no loss, the American forests abounding with the finest specimens of trees and shrubs.

A country becomes in general more healthy, the more population increases, and the more it is cultivated; but it has not been so with this, as it is known that the dreadful yellow fever did not

appear at New York before the year seventeen hundred and ninety three, more than a century after the town was begun to be built. In answer to the enquiry I am making with regard to the origin of this disease, most of those inhabitants I have had the opportunity of speaking to on the subject, are inclined to think that the fever has been introduced by the commerce with the West Indies. My reply has been, that if this were the case, it would seem very extraordinary, that, notwithstanding the most severe regulation of quarantine which they had established, the disorder should still make its appearance so often here, when in other towns, where not so much attention to those regulations is paid, this contagious disease did not appear, or was soon stopped in its progress: wherefore it seems to me, that at least the fever must find here, when introduced, more matter for increasing than in most other places. To get more information about this, I went to those places where the disease is said in general to make most commonly its first appearance; these are on the East river, along the shore of which are to be remarked many inlets in the wharfs for the convenience of the vessels, which not only prevent the water from flowing, but are made the receptacle of all kinds of filth, which are thrown into them at night, as being the nearest to the streets. I have been at about fourteen of these inlets, where many very foul exhalations arise, occasioned by the putrifying carcasses of dogs and cats, &c. At another quarter of this town, where they are newly building, have been, and are still, partly, great swamps, over which there is just enough rubbish thrown as to prevent the house which is built upon them from sinking into the mould, whilst the ground beneath contains stagnated water.

The burial places also are in the town, which in a city so much subject to contagious diseases, must contribute very much to infect the air. The houses in general are very neat in New York, and I have found, on looking into those of the inferior classes, that they have a cleanliness not surpassed by any other town I ever have

seen ; but in many of the lower streets the inhabitants, to keep their houses clean, throw out their rubbish and the remains of their cookery, consisting of many parts of vegetables, before their doors, leaving the whole to rot till the carts come and take it away.

When, therefore, the hot season comes on, and the thermometer of Fahrenheit is up to ninety-two, ninety-four, and even, it is said, to a hundred and ten, when there is often not the least breath of air, and I have suffered much by it, though coming from the sixth degree of the Tropics, it is natural to suppose that the air must be greatly infected with the deadly vapours exhaling from so many sources of pestilential corruption. The inhabitants of these districts of course become the first victims of contagion, especially as they are crowded together in small houses ; whilst the villages in the vicinity, which are more healthily situated, are not attacked by the fever.

To remedy, or at least to lessen, this dreadful disease, it is necessary in the first place that the inlets should be entirely and carefully filled up, and instead of them, for the benefit of the vessels, wharfs might be built on the river, and so constructed as that the water should have a free course under them. Watchmen ought to be placed in the night, at least during the hot season, along that part of the river which is the nearest to the streets, to prevent any noxious filth being thrown into it at that time ; and particular places should be appropriated for its reception. The swamps should be entirely drained to the very bottom, or canals cut through them before any person be allowed to build a house there. The burial grounds ought to be removed out of the town, and the strictest attention should be paid to cleanness in all the streets.

In every newly established state, the government would act more advisably, and for the general good, in appropriating the surplusage of the public income in improvements, than by laying it up in the treasury. And how can it be better applied than for the benefit

of the health and the prolongation of the lives of the inhabitants? Even the desire of accumulating riches is often interrupted at present here, for as soon as the yellow fever makes its appearance, all commercial business in this place is at a stand, and that, too, in the very best season of the year for trade. At the commencement of this present month of July, the inhabitants have been several times greatly alarmed by a report of some signs of the fever; and now, at the end of this month, a prevailing disorder, the influenza, is spreading rapidly, but the people console themselves with the hope, that however severe this disease may be, it will not be followed by the still more dreadful scourge, the yellow fever.

As I am speaking of diseases and deaths, I am sorry to find, by the American papers, that to all appearance Mungo Park has lost his life in his travels in Africa. Though he was certainly excellently qualified for such a difficult undertaking, and a man of a most patient and enduring character, yet there was too much reason to fear that he would ultimately fall a sacrifice to his ardent spirit of enterprise. Perhaps the best method for an European government who wishes to obtain a knowledge of the interior parts of Africa, would be, to employ two or three Armenian merchants, who are known to travel through all Africa to sell their goods to the different negro nations; with these merchants also should be sent the European traveller; he should be dressed like the Armenians, and pass also for a merchant, by which means he would avoid the suspicion of the people through whose country he passes; and the Armenian merchants could give him proper advice in sickness, or assist him in other exigences. I cannot help thinking that if Mr. Park had travelled in such a way as this, we should not have lost the continuance of his labours, but have profited still more by his valuable discoveries.

There is no information to be had of Mr. H. Th—. The landlord of this hotel thinks that some years ago a person of this name lodged

in his house ; but on asking him if he recollected any gentleman of this town who had been acquainted with him, he harshly replied, " how could he remember any particular person out of so many hundreds who are daily coming and going from his house ? " It is true his recollection seems to fail him often, for I have heard him disputing with a passenger when he had made a mistake in the bill, and such a thing has also happened to me ; but from the great extent of his concern, confusion must undoubtedly sometimes arise, even without any wilful intention on his part, and as mine was not a considerable object, I paid it without any demur.

Mr. W. has been so good as to offer me, that if I intended making a tour to the different states, he would provide me with the means for it, which I readily accepted. As the influenza still continues to spread very much, I therefore am the more desirous to leave this city.

I will not venture to give you a full description of all those places in the United States which I intend to visit, as this has been done so largely by travellers who have long resided here, and consequently had a better opportunity of seeing the country ; therefore, I shall only just attempt a slight sketch of what comes under my observation.

On the thirty-first of July I set off for Philadelphia. Hudson river, which is crossed in a ferry boat, is here esteemed to be above a mile and quarter wide. On the opposite shore, at Paul's Nook, I got into the stage coach, taking this manner of travelling at present as the most advisable method.

The road is good, and where it passes through the great cedar swamps, a causeway is made of logs, lying close together, across the road, and covered with earth, dug out of the ditches on each side the road.

The boroughs and small towns lying on this road, appear to be very wealthy, and they increase in importance the nearer you come

to Philadelphia. Woodbridge is a handsome post town ; the country about it is level, and seems to be very fertile, but particularly in rich meadows. Maidenhead, which is reckoned to be about thirty-seven miles from Philadelphia, has a very valuable tract of meadow land, of which the rich garden earth is said to be in many parts six feet in depth. Frankfort, which is about six miles from Philadelphia, is situated on an eminence, at the bottom of which a creek flows into the Delaware : this place is very populous, the houses are handsome, having very fine gardens adjoining them ; and the situation is beautiful. Harrowgate is about four miles from Philadelphia, the inhabitants of which city make their excursions hither for pleasure. At this place is a mineral spring, which is made use of both for drinking and bathing.

Philadelphia is situated on the western bank of the Delaware, which is here nearly a mile wide, and a hundred and twenty miles from the sea. The opposite side of the town is intended to be continued to the Schuylkil river. Though this city is well situated for inland trade, and its shops seem to be amply stocked, yet its commerce has been surpassed in latter times by New York. The town stands on an extensive plain, and most of the streets are very regular, many of them lined with trees, and the houses, which are handsomely built with brick, are mostly three stories high. There are thirty meeting houses here for public worship, viz. five for Quakers, six for Presbyterians, three for Episcopalians, four for Roman Catholics, three for Germans, two for Methodists, one for the Swedes, one for Covenanters, one for Moravians, one for the Baptists, one for Universalists, one for the African blacks, and a Jewish synagogue. It is said that, notwithstanding all these religious divisions, the inhabitants live together in brotherly harmony.

The state house is a large building, and shews that Philadelphia, in the year 1735, when it was built, was of considerable importance, and its architecture is considered as not indifferent.

The bank of Pennsylvania, however, is the handsomest building; the exterior of this edifice is of white marble, which is got a few miles from the city near the river Schuylkil; the edifice is in the Grecian style, and the front is adorned with a portico of six columns of the Ionic order. The architect was an American.

The bank of the United States has in front a portico of six white marble pillars of the Corinthian order.

The building for supplying the town with water is a most excellent edifice; it is built in a simple but elegant manner; it consists of a regular square of sixty feet, a dome, and a portico, of which the pillars are in the Doric order. The building is of brick, faced with white marble; but the reservoir is entirely of the latter material: it is said to be capable of containing twenty thousand gallons of water, the machinery for conducting which is worked by a steam engine. This building is situated on a square planted with poplar trees, intended for a public walk, but for which it is rather too much confined; as, however, it fronts Market-street, it forms a fine prospect for the principal part of the town. The largest market is situated in this street, and is four hundred and nineteen ordinary paces long, calculated at about a yard each; it is divided by two streets; the breadth of the building is about five feet in the clear; its roof is supported by pillars of brick, and the alley is paved. The town has also three other markets furnished with plenty of all kinds of provisions; the good police and order observed here merits the highest praise.

To the many beneficial public societies which are established in this city, the institution of the Philadelphia library is deserving of particular notice; it is open every afternoon, Sunday excepted, for the use of the public, and those who will leave a proportionate deposit may read the book at home.

The museum of Mr. Peale, considering that it is a private collection, merits much praise. Government has granted him apartments

in the state house, and he has engaged himself never to part with any specimen that may be deposited in his collection. Mr. Peale, who possesses talents in painting and music, is much attached to natural history, and has collected since the year 1785 this interesting museum, without any assistance. The mineral collection is considerable; the cabinet contains also a Peruvian lama, which is to be found in few other cabinets. Mr. Peale told me that he had kept this animal a long while alive; but in the season of copulation, being a male, it became so unmanageable, that fearing he might hurt his feeders, Mr. P. chose rather to kill him. On telling Mr. P. that I wished to see the toad with a tail and horns, of which there had been given an extraordinary account in the European newspapers some years ago, but which I supposed might be a lizard, he replied that it was really so. This lizard is above eight inches long including the tail, and has on its forehead near the eyes, some short horny excrescence; the skin over the whole body is very rough and of a blackish colour.

Two snakes each with two heads are also in this collection; they are not like the Surinam snake so called; but have really two heads attached to the same neck. The snakes seem to be not above six or eight inches long, and are preserved in a glass with spirits of wine. I shall try to get a living one, doubting what is asserted here by different persons, that this two-headed snake has the equal faculty of using both heads to see and eat.\*

But the most interesting object in Mr. Peale's collection, is the skeleton of the mammoth discovered in the Ulster county, of the State of New York, in eighteen hundred and one; and to get the bones out of the swamp, they were obliged to make use of a machine. This skeleton is eleven feet ten inches high, and nineteen

\* These double-headed snakes are said to be mostly found near Lake Champlain: I could get no information whether there are some of the same species with one head, and the others, therefore, mere monsters, which is most likely the fact.

feet long; it differs from the elephant by its carnivorous teeth. The tusks fixed in the head of the skeleton are artificial, but a part of the real tusk of the animal, which was found with the skeleton, is also exhibited, from which the proportion is taken for the artificial ones. Some persons are of opinion, that this species of extraordinary creature may still be in existence, and like the hippopotamus of the ancients, the mammoth may live in the large rivers of the new world, or in the depth of the great ocean, from whence these bones got into Terra Firma by some of those extraordinary revolutions in nature, which have deposited so many beds of sea shells on the tops of the highest mountains. The strength of his grinding teeth might serve this animal to break the hardest shells of sea muscles for its nourishment.

Having read in travels to North America, published many years ago, of a mule bird, which had been produced by a game cock and a duck in Philadelphia, at the house of Dr. Glentworth, but which gave no farther description of it, and hearing there was still a Dr. Glentworth here, I could not restrain myself, from enquiring about this phenomenon in natural history; and accordingly went with Mr. Semple, to whom I had a letter of introduction, to call on Dr. Glentworth, to whom I made an apology for my curiosity. He received us very politely, and told us that this curious bird had really been in the possession of his father, and he recollected it very well; that it was shaped in the upper part exactly like a cock; but that the lower parts, particularly the feet, were like those of a duck, being web-footed: the whole figure of this bird was remarkably erect. The Doctor said the bird was sent by his father to Mr. Hunter in London, who, in answer to his father, acknowledged the receipt of the letter, but said it was not accompanied with the bird, and all his enquiries to get information of it were in vain: therefore, it was suspected to have been lost by the negligence of the captain. It is a great pity that Mr. Hunter did not receive this

bird, as by his observations and dissection, we should have had the fullest investigation of this wonderful phenomenon in nature.

The weather being fair, I thought it best to continue my tour, and leave the other remarkable objects here till my return. The extent of Philadelphia at present along the Delaware, is stated to be about three miles, and in some parts to be about a mile wide, and the population eighty thousand souls. Opposite the town on the river Schuylkill, where the river is seven-hundred feet wide, a bridge is erected, which rests only on three large arches, of which it is said the middle one is a hundred and ninety feet span, and the two other arches, one hundred and fifty each. The bridge is fifty feet wide, roofed, and great solidity is given to it, by the skilful combination of the beams in the upper part, similar to that at Schaffhausen in Switzerland, but the present one is built on a larger and more elegant scale ; has a foot path on each side, and is lighted in the evening by lamps. There is another bridge over the Schuylkill on the road, built on a similar plan, but as we passed in the stage coach very quick over this, I can give you no further account of it.

The road from Philadelphia to Baltimore is very indifferent, though we pass through many good villages and country towns.

Chester, about fifteen miles from Philadelphia, lays claim to the honour of being the most ancient settlement in Pensylvania, and the first place where the colonial assembly met. The swamps of the Delaware in the vicinity of Chester having been embanked in, and different dykes cut through them, has not only afforded valuable meadow land, but improved the healthiness of the situation so, that during the sickly season at Philadelphia, many of the inhabitants make their retreat to Chester as a place of security.

At Marcus-hook on the Delaware, wharfs are erected for defending the ships against the floating bodies of ice.

Wilmington, eighty-two miles from Philadelphia, is a populous, and, to all appearance, a thriving place.

Baltimore is ninety-nine miles from Philadelphia ; the Patapoca river forms here an excellent harbour, and it is said that in some parts, ships of five hundred tons can moor. Trade is carried on here to a very considerable extent, and is much increased by the abundance of ores found in this country ; coal mines have also been discovered here. The part of Baltimore which is near the harbour lies rather low ; but the other part of the town is built on an elevated situation, and some parts stand very high, the new streets are regular, and are of a well proportioned breadth. The public buildings, however, do not appear to have any thing particularly remarkable.

From Baltimore I set off to the city of Washington, which is about fourteen miles distant ; the road is very bad, and the villages on it, have not the appearance of prosperity that those between Philadelphia and Baltimore have. The adjacent forests contain many cedar, pine, and spruce trees ; but none of a large growth are to be seen on this road. The stage coach passes through the city of Washington, and stops at George Town, which is only separated from it by the Rock creek. At this place is a Roman Catholic academy, and its situation on the Potomack is very fine. The town is built on different small hills, and though not large in extent, seems to thrive well in commercial business, of which corn and tobacco form the principal exports. From George Town I went to take a lodging in the city of Washington. The local situation of this place is well calculated for becoming the seat of government of the Federal United States, as lying in the centre of the territory of Columbia, and thus exercising a judicial authority, apart from that of the several states. It is built on the point where the Potomack and the Cannogecheque form a junction, which last is commonly called the eastern branch of the same river ; this promises the city an extensive commerce, while it is equally favourable, being situated at such a distance from the sea, for the sittings of the congress, who can never be disturbed by

an enemy's fleet. The situation is also deemed very healthy, and several rivulets flow from the heights to the city, so as to render it easy to raise the water to any part of an edifice: there are also many excellent springs for wells. With all this it is said that the town would have become very opulent, if the states had resolved to build the houses at the public expense, and then have sold them at a reasonable rate; the town would in that case have been soon supplied with inhabitants, and have thereby afforded a considerable revenue to be employed for the improvement of other parts of the place, and for the erection of public buildings: but unfortunately it was resolved to divide the land into different lots, and sell them to the highest bidders. Speculators who possessed a sufficient property, now secured to themselves the largest tracts of land, in the most eligible parts of the new planned city, not with the intention of building, but to sell the ground again at an advanced rate, and this went on in the same manner, till the piece of land became so extravagant, that no person who attentively considered the matter could engage in building houses here, with the expectation of any reasonable interest for his money.

The principal part of those who were about to become inhabitants of this city were shop-keepers, and other persons of small income, who could not apply their money in building houses in hope of future profit, as even then there was an uncertainty which part of the town would be most enlarged, as every owner of a lot tried, by public advertisements, to discredit all the rest of the city but that which belonged to himself, which only created in the people a distrust in them all. The first great desire to possess a house in the Federal city began now gradually to lessen, and particularly so, since Louisiana has become a member of the United States: the city of Washington being no longer a central spot to the territory of the Federal government, and perhaps it may be found most convenient in time to have their congress transferred to another place,

though this city has already cost the public a good deal of money. The plan for laying it out, on inspecting the place, merits much approbation: the distribution of the streets is well chosen, and a number of squares are laid out beneficially for a free circulation of air in a large city, which is much wanted in the other towns of the United States; but though the houses already built are esteemed above seventeen hundred, yet their effect is lost, being scattered about in a space of about four miles and half in length, and two miles and half wide. Had the plan of building the first part been directed by the legislature, and commenced with building houses nearest to George Town, the inhabitants would directly have enjoyed all the benefits and comforts of that town, and thus the city of Washington would have increased in a regular form. The distance from the president's house to the Capitol is also considered as too great, being a mile and half, and is expected will occasion in future times many inconveniences.

The Capitol stands on a high commanding ground, and will in time be a very extensive building, erected of hewn stone; but at present it wears rather a gloomy aspect, which seems partly to arise from the narrowness of the windows; however, it would be wrong to judge of the effect of a building which is but half finished.

The navy-yard, and the store-houses, seemed the most forward buildings in the city, and there were several frigates to be repaired. But in this crisis of a misunderstanding of the United States with the principal maritime powers, I thought it wrong for a foreigner to visit those places.

The president, Mr. Jefferson, had left the city a few days before my arrival, for his country seat in Virginia; however, I went with another gentleman to the president's house: it is built with hewn stone, standing on a high ground, and is a very elegant building: the apartments are large, well proportioned, and furnished with taste. The prospect when the town is finished will be very fine.

They have here already the convenience of hackney coaches, but their regulations differ from those of any other town; they take as many persons in as they have seats, like the stage coaches, and drive them according to the order of the passengers, that is, each in turn, so that a person who takes a seat is sometimes carried a good way about before he arrives at his own place of destination. From the few inhabitants, and the great distance from place to place, the hackney coaches could not get a subsistence, except by charging too high for a single fare, which has occasioned this regulation.

From this city I went in the stage to Alexandria. These coaches are not like those of Boston, with springs; and though it is true there are seats for twelve persons in them, no regard is paid to the legs of the passengers, as the luggage is put under the seats, and the rest between the benches, so that it is often very difficult to obtain a tolerable resting place; to this incumbrance add, in your imagination, roads as bad as those in Poland, and a driver as expeditious as an English postilion, and you will have a complete idea of this comfortable manner of travelling; however, the horses are better than might be expected, and the distance to Alexandria is only six miles.

Alexandria is regular and well built, on the Potomack river. The distance from the sea is reckoned about two hundred and eighty-nine miles, notwithstanding which its commerce is very considerable. This town lies on an elevated ground, from which a fine prospect is enjoyed over the Potomack, to the opposite shore of Maryland.

I had been travelling through the different states without discovering a distinguishing character of the inhabitants of one province from another, but here at Alexandria it was very remarkable, for the people are of a frolicsome disposition, have a great deal of vivacity in their actions, and are very rapid in their manner of speaking. At the table of the hotel the discourse is not confined to two or three

persons as they sit together, but is quite social in general conversation. I had the pleasure to find Capt. Lewis here, who is known by his travels in Louisiana, and is at present nominated governor of Upper Louisiana. He has an high expectation of the benefit which the United States may reap from a commerce over that country to the Pacific Ocean, and several gentlemen at table were of the same opinion with him; but when one considers the large tract of land which must be travelled through, and the many chains of mountains that are to be passed to gain the Pacific Ocean, the profits to be gained in this traffic cannot be great, and will only become considerable by another channel, when Spain shall find it convenient to adopt the plan of making a canal from the Lake of Nicaragua, or some other favourable parts of Mexico, for a direct commerce between the Atlantic and the East Indies. A town then built there will become of much greater importance than ever the Egyptian Alexandria was in ancient times.

At Alexandria I hired a horse for Mount Vernon; but when I wanted another for a guide, they told me, that they could not get me one, as all the rest of the horses were engaged: to this I replied, "But if I do not return again with your horse?"—"Oh, we are not afraid of that"—"But I may lose my way"—"We will direct you." And, indeed, though it is nine miles from Alexandria, and passes through different forests, in which are many cross-ways, they gave me so good information, that assisted by the directions which I also received at several houses where I stopped on the road, I got to Mount Vernon without committing the least mistake:

Mount Vernon is in a most beautiful situation on the river Potomack, which is here esteemed near two miles wide, and the mountain is considered about two hundred yards above the level of the river, which gives it a very extensive view. The house of the late General Washington is of wood, two stories high, with a lofty portico, shading both stories, and supported by eight pillars; a wing

of one story high is attached to each side of the house. In front is a park laid out in the modern European style. The present possessor of Mount Vernon, Bushrod Washington, Esq. nephew to the late General, was on a visit in the neighbourhood; but the gardener shewed me the interior parts of the house. It consists of one large apartment, and some smaller adjacent; the furniture has been changed since the death of the General, but there are two objects left in the place where they had been originally deposited, and afford room enough for much contemplation: the first is the portrait of Lewis XVI. sent by himself to General Washington; and the second is the key of the Bastile, sent by the National Convention to him when he was president.

All I could learn from the old servant of the General confirmed that George Washington mostly preferred a private life, and only accepted a public place at the great solicitation of his countrymen.

I went to visit his remains in the place of interment; the coffin stands in a vault built of brick, and in the most simple style, but it is expected, that when the spirit of parties shall have more evaporated, the nation will unanimously vote him a suitable monument as a testimony of public gratitude.

About noon I returned to Alexandria; but I should have wished at any other time to have continued this tour into the more interior parts of the United States; several considerations, however, made me resolve to proceed immediately to New York, without completing my plan, among which a leading one was to go and inform myself with respect to the whole process of treating the sugar maple tree, and the preparation of the sugar made from it; but I can only now send you an extract of what Dr. Mason in Providence has favoured me with: "*Acer saccharinum*, or sugar maple, is a large growing tree, will arrive at the height of forty feet, and has broad thin leaves, divided into five principal parts, which are again indented or cut at the edges into several acute segments;

their surface is smooth, of a light green colour, whitish underneath, and they grow on pretty long foot stalks. The flowers come in the spring, about the time of the Norway-maple; and they are succeeded by long keys, which sometimes ripen in England. In America the inhabitants tap this tree in the spring, boil the liquor, and the fæces afford a useful sugar. 'This tree grows between lat 39. and 43 north, in America.' As this grows in Pensylvania, which has the climate of our country, there can be no doubt but that it would grow as well with us; but in thus recommending its being planted there, it is not my intention to say that we should no longer want the sugar cane; for even in North America the consumption of the West Indian sugar, is by far greater than that of the maple-tree; yet this last sort is always very useful to private families living in the country; and the preparation of the maple sugar, would at least merit a preference to that made from turnips, as the turnips not only require a large field, but much labour and preparation, whilst the sugar maple-tree can be planted near the country buildings, in the hedges, and in short in all the grounds, which are not used for any other purpose; besides which the tree requires hardly any further attention.

There is a cheerfulness in the conversation of most of the Virginians, which is really pleasing. In travelling in Europe through different nations, which are separated from each other, it is not surprising to find a national character in each; but here in North America, where the different states are united under one common government, where without the exclusive establishment of any religious persuasion; and where, except some local alteration, the laws are in the principal parts the same; still there is a striking difference in the character of the inhabitants of these southern states, from those of the northern provinces, and which distinctly shew the influence of the climate. Some philosophers have indeed attributed too much power to that influence; for experience shews that

the human species is not hindered by its organization from evincing genius and talents in any part of the globe: though the inclination for exercising them is very differently felt in different climates; whilst the natives of the southern countries delight in those arts and sciences, which are peculiarly pleasing to a high and brilliant imagination, the natives of the northern regions prefer in general more abstruse studies; and while the talents of the former are employed to make new discoveries, the others will endeavour to improve them; this consideration should serve to increase mutual esteem, as the world would have been very imperfect in all arts and sciences, had civilization been confined to one region, or the collection of the human species into society and cultivation, been restricted to the northern or southern parts of the globe. The same thing may be properly observed with respect to the cast of temper, as well as to the turn and application of mind, which also may be found very different in different places, in the mode of expression. Thus, for example, a native of a southern country returning to his father, whom he has not seen for many years, will fall upon his knees, bathe the hands of his parent with tears, and tell him with words full of affection how much he has suffered during his absence. The native of a northern country coming in the same circumstances, will take the hand of his father and bring it to his heart: Here, father, he will say, I feel more than I am able to express; who will deny that both are not equally affectionate children, though they differ in expressing their feeling.—This is just the same in matters of religion. The civilized different nations of Europe adore all the same Creator of the universe, and acknowledge all the same divine scripture; but the inhabitants of the southern country differ much in their religious forms from those of the north; and though it cannot be doubted, that in progress of time they will still more agree in religious principles, yet it may be expected that some difference will still continue in the church ceremonies, between the inhabitants of those different climates.

Taking a place in the stage coach, and expecting a good company, is like the chance of the lottery. I found the best prize in respect to this, in my return from Washington to Baltimore; the party consisted of gentlemen who had estates in the neighbourhood of this country, others who had places under government in the Federal town, and one officer of the navy of the United States, well informed, and of a very genteel behaviour; thus the tediousness of the road was cheerfully wiled away.

At my return to Philadelphia, I went with Mr. Semple to visit the city and county gaol, which was shewn to us by one of the inspectors; but he told us that many of the prisoners had caught the influenza, and what was very extraordinary, even several who were confined in the solitary cells. The building of this gaol has a story half under ground, and two stories above it; all the rooms are arched with stone fire-proof. In the inside is a large square, where those prisoners who have not been bred up as craftsmen are employed in sawing stones, and those who have less strength in combing wool, beating hemp, and making nails with machines: the manufacturers work in general five or six in a shop together. Out of the emoluments arising from this is paid the expense of their support and clothing, and the rest they receive when the time of their imprisonment is expired. Neither singing nor noisy talk is suffered here, and each is under the control of the others; the doors of the work shops, which lead into the interior square, are not locked.

The solitary cells are eight feet long, and about seven feet wide, they are vaulted, and each has a small window, a water closet, and is warmed by a stove which stands in the passage, that communicates with the cells by a double door, one of iron rails which is locked, and the other of wood. The prisoners have no communication with any person except the gaol-keeper, who hands them their dinner through the door.

The prisoners who are confined in the solitary cells are of two classes. The first are those criminals who were in former times condemned to be executed. The time of their solitary confinement in these cells, is left to the determination of the judges; but the laws of Pennsylvania have made the rule, that it is not to be less than the twelfth part of the time of their whole imprisonment, nor to exceed half of that time. One we saw here had murdered his mother, and afterwards gave (or dissembled) signs of madness; the other prisoners confined in the solitary cells, are those who since their confinement in gaol have not conducted themselves properly, and the time of their close imprisonment is left to the judgment of the inspectors.

When we asked for the solitary cells of the female convicts, the inspector told us, they were in the story half under ground. Shewing our surprise at this, he replied, "that when females gave up their tender feelings, and became criminals, they were sometimes more difficult to keep within bounds than men themselves." Observing to him, however, that many considerations should allow more indulgence to them, he said that this was really done here; that they were in general not long confined in those cells, and there was none at this time. The whole occupation of the female criminals in the gaol is not hard work; but consists in spinning, combing wool, and washing for the other prisoners.

There cannot be the least doubt that the strictest justice is observed here to all the prisoners, as the inspectors, gaol-keepers, and under gaol-keepers have all a good salary; besides, the prison is superintended by the mayor of the city, and judges appointed for it; again, it is visited every quarter by the governor of the state, by a number of judges of the superior courts, and by the grand jury.

The establishment of this prison answers in the highest degree two principal objects; first, to detach the culprits from their evil habits, and amend their future conduct. Secondly, by a well

ordered occupation, it accustoms them to work, and by this means not only prevents them from becoming a burthen to the state, but even leaves them some money for an honest pursuit, when the time of their confinement is expired ; but when it is suspected that any one is not a good œconomist, instead of giving him the surplus money, the value is given him in clothes.

But the greatest proof of the beneficial effects of the regulations, adopted for this prison is, that the former gaol was repeatedly filled by old offenders, whilst experience now shews, that of a hundred convicts discharged from this prison, there are seeldom known more than two or three to return as criminals again.

It is indeed more to be regretted that a nation, which forms such an excellent system for the criminals, should not have yet adopted the most effectual measure for preserving the health of its inhabitants in their principal city. In the first plan, all that was observed was to make this town very handsome ; the streets were laid out regularly, and the buildings are spacious ; but latterly, streets have been added, some of which are a disgrace to the place. Dock-street was formerly a swamp, with a brook running through it ; but this brook has been arched over and a row of houses built on it, whilst, in all probability, the marshy ground is filled up in the same negligent manner as at New York. Water-street is still worse ; a number of very mean houses are built on the beach of the Delaware, on very swampy ground ; and can there be any further doubt, that the contagious diseases principally originate here from the contaminated atinosphere, when even the prisoners in the solitary cells are attacked by the disorder ? If the people of Philadelphia would embank the Delaware, and drain what is now marsh land, as is done at Chester ; and if, instead of the present inlets, they would build piers for the security and convenience of vessels, it would essentially contribute to the health of the inhabitants, and might probably lessen the visits of their mortal enemy.

And the same observation and advice might be properly given to the inhabitants of New York.

There is another circumstance which I have heard, that is, when the dreadful fever rages here, not the nearest relation attends the funeral, for fear of being affected by the contagious disease. The sad solemnity is therefore left to the care of the negroes, who do not catch this disorder; of which they themselves are so confident, that it is said they make no scruple of plundering the corpse; and in confirmation of this, it has been generally observed, that the negroes are never better drest than when this dreadful disorder prevails. Now if this is really the fact, when so much care is taken to burn and destroy the apparel, that was usually worn by the deceased in the contagious disorder; and these negroes do bring into use again the dresses from the grave, it should be most strictly prevented, which might be done, by making a law, that every corpse interred, should be clad in a shroud of a particular kind of stuff, never worn by living persons, by which means the theft would be easily discovered. Thus, for instance, if a pattern of linen or cotton, was wove all over with distinct black and white crosses, none would use it, but for dressing the deceased.

Having taken a ride with Mr. Semple to the botanical garden, and to the country seat of Mr. Hamilton, who has a fine planted park; and having refreshed ourselves at Kingston, beneath the shade of a large tree, under which, it is said, William Penn concluded an amicable treaty with the Indian nations, we returned again to Philadelphia.

Mr. Semple was so good as to offer me any money that I might want; I frankly told him how much I had left from this tour. Mr. S. thought it better to have a supply, and immediately furnished me with an adequate sum. Travelling is here very expensive; in the hotels they charge for the day of arrival as a full day, though the passenger comes very late, and also at the departure they charge the

same, though you set off ever so early ; therefore in spending two days in a place, the bill is to be paid for four days ; and as here is always at breakfast, besides tea and coffee, meat and other solid dishes ; and as the supper also consists in different dishes, the bill, by this means, becomes very considerable ; and though, in consideration of my health, I never partook of this sort of breakfast and supper, they charged me not only for them, but made me also pay for the milk and fruit which I had instead of them. Though paying for the room a whole day, when we do not stay so long, is not to be objected to, yet it is certainly an imposition to pay for dinners and suppers which must be paid for again on the road. But being angry, and disputing with many landlords, is worse still, and therefore it is better to submit to their demands.

On the eighteenth of August, when I returned to New York, I went to lodge at the Mechanic's Hall, which is in a good situation opposite the park, and the people are here reasonable in their charges ; but as lodging and boarding with a private family in Gold-street was recommended to me, I preferred it, and I have the greatest reason to be pleased with it. Since my return to New York, I have employed my time in visiting several places which I had not yet seen : the first was a botanical garden, though some miles from town. I should not have postponed this so long if I had received a more favourable account of it earlier ; there are different Indian plants kept in the hot-houses, and the gentleman who accompanied me hither was very highly gratified with the motion of the mimosa, or sensitive plant ; he told me he had read of it, but always treated it as a fable. When I asked the gardener if he had here the *Dionæa muscipula*, Lin. or, as it is called in English, the Venus Flytrap, which grows in the southern parts of the United States, and gave him the description of it, he smiled, saying, that if such a curious plant was growing in the territory of the United States, it would be undoubtedly kept in this botanical garden. The hot-houses are

built on an eminence, and seem by their situation to be too much exposed to the rigorous winter season of this climate.

The new theatre on the east side of the park is very elegantly fitted up, and much on the plan of Drury-lane, in London, but proportionably on a much smaller scale. It is said there are some very good performers on this stage; but as it was fresh painted, and I found myself not well, I did not stay long there.

At some distance from New York is a large public garden, arranged for a Vauxhall, and sometimes in the summer season plays are also performed here; the stage is built projecting from a house, and the benches for the spectators are in the open air: the performers correspond well with the indifference of the theatre. There is a number of other public gardens for the recreation of the inhabitants, but no walk is equal in beauty, particularly in point of situation, to the Battery. Quite close to it is a public garden with shaded alcoves, and a fountain in the middle of them; the walks are lighted with coloured lamps, and a band of music plays here, while ice creams, lemonade, and all other kinds of refreshments are to be had.

It was at this time advertised that a Mr. Fullard would shew how an enemy's ship might be blown up by an unexpected attack from under the water, and that he had bought an old large ship and anchored her opposite the Battery, to shew the public this explosion, which collected a great conflux of people on the parade; but after observing two ineffectual trials to blow up the ship I left the place: I have since, however, heard, that on the third trial it succeeded; but the people felt themselves much disappointed, as they saw nothing but what they well knew before, that gunpowder could blow up a vessel. As this ship, however, made no resistance, and such a length of time was consumed in the operation, it cannot possibly answer the intended effect against an enemy,

Mr. Fullard has been more successful in an experiment to build

a vessel to go against tide: it is done by a steam engine bringing in motion two large wheels, which are situated outside of the vessel in the middle, in the form of a water-mill wheel. I went with two sea captains to the vessel, and both said she was about one hundred and fifty tons, and that the steam engine and the oven took up so much that she would be able to carry only a cargo of sixty tons; but the intention is not so much for using her in the carriage of goods, as for a packet to go up the river Mississippi. Mr. F. has already made several short excursions with good effect; and that this invention may be attended with complete success is much to be wished.

Mr. E. Smidt has a country house most charmingly situated, and with him and his family, I have spent many days in very pleasant society. But I have been several times much indisposed here, which I principally ascribe to the rapid change of the weather; for instance, the thermometer of Fahrenheit was one day 94 degrees, and the next day 72; the next day following 65. And should I have been obliged to stay the winter season here, my constitution would probably have suffered very much by it: but a brig has been advertised as sailing to Lisbon, and Mr. Wheaton has told me that he and his friends had not the least doubt I would remit their advances, when I should arrive in Europe, and were willing not only to furnish me with all my further wants in this country, but also for my passage to Europe, if I should not wish to postpone it any longer. As an embargo in all the United States is expected soon to take place, I accepted, therefore, more readily their present kind offer, and directly agreed with Capt. Hunter for my passage for Lisbon, in the brig Unity, and the captain thinks to sail in a few days.

On my departure from the United States, I will give you some remarks on the general character of the inhabitants, as far as I had opportunity to observe it, in a tour through different states, in an acquaintance with many families of this nation, and even in

travelling in a public coach, which, though it does not give a satisfactory opportunity to observe the country, exhibits an assemblage of many strange characters, who often strongly display their mode of thinking, and which a stranger would have no opportunity of learning, nor would wish to have further than the time occupied by a few stages affords, though at other times he meets there with company which is really interesting and pleasant; by all these different circumstances, I have found, that the inhabitants of the United States, as they happen to descend from English, German, or French families, so they still possess the most striking marks of all the good qualities and faults of those nations. It is true the Americans in their different pursuits to make rapid fortunes, shew a greater excess of speculation than any of the other nations; but this can only be attributed to the present state of their country, where many branches for accumulating wealth stand in need of great improvements; wherefore an enterprising undertaking has often been rewarded by a considerable and quick return of profit, whilst others, stimulated by such examples, have flattered themselves, that by imaginary plans, they may acquire an equal good success. But in the course of time a more steady industry will gradually diminish those hazardous speculations.

The great inclination which the people of this country have for disputing on political matters is sometimes very unpleasant: in stage coaches, or at the table of the hotel, I have always declined entering into those discourses; but in private company it is not always possible to avoid it: they are not content with praising their own constitution, but they attack the principles of other governments, of which they have often very little information; and they are even much displeased with those who wish to change the conversation to other subjects, and they will declare it unnecessary to observe so much reserve of opinion in this land of liberty.

To all this my answer has been, “ Well then, sir, you will admit that a government is good if it agrees best with the local situation of the country and its inhabitants; wherefore, it requires a perfect knowledge of that empire and its nation, to be able to judge of the proper proceedings of that government; for regulations which are very useful for one nation, might be very destructive if they were adopted by another. To go no farther in details on this subject, we at least both agree to be each of us much attached to our country, and to be content under our government.”

Another gentleman, who was from Providence, said, they had established a law, that a nobleman who intends to become a citizen amongst them, is to renounce his title for himself and his successors. Yet no nobleman has a right to dispose of the claim of his successors. Many of the inhabitants of the United States have a very extraordinary idea respecting nobility, and think that vanity is always united with that order; but in what does nobility principally consist? It is a reward of honour bestowed on distinguished merit to a citizen. When, therefore, a nobleman esteems his ancestor who brought the title to his family, he is also to esteem in him the citizen. Therefore, if a nobleman is possessed of vanity, it cannot be attributed to his title; but must originate rather from that selfish pride by which the greatest part of mankind is so much infected, through all its different classes and stations indiscriminately, and only changes the name, though the sentiment is the same in effect. Did not the vanity of Diogenes exceed the ambition of even Alexander the Great? And when this prince gave him an opportunity of asking a favour, which he might have employed for the benefit of his country, then in a declining state, he made no use of it, and only for the sake of flattering his pride, whilst the maxims of the true philosopher is, never to fall into extremes.

The true merit of a nobleman is to follow the example of his ancestor, and endeavour to be as meritorious to his government and

country, as he was when he obtained a title as the reward of it, and always to have more respect for honour than fortune. Certainly these principles cannot be with justice attacked, and though some individuals who possess titles bring censure on themselves by their behaviour, the order of itself can never be affected by their conduct.

As the present government of the United States is entirely democratical, hereditary titles are not given to any of its inhabitants, and it is proper for those of rank who settle here not to infringe those laws respecting themselves; but when nations have been suffering by different factions, or by civil wars, and think it best to establish an hereditary government, they likewise will establish an hereditary nobility, as a solid support of that government; men who will distinguish themselves by a zealous attachment to their monarch and country. It is therefore to be expected that the order of nobility will exist as long as kingdoms exist, that is, until the end of the world.

Other political debates amongst the inhabitants of the United States arise from the misunderstanding that prevails at present with their country and the principal European maritime powers; but upon this a stranger ought not to discourse. However, speaking in general with regard to the disputes that are here in company, they are like the hurricanes, violent, but soon passed over, and the rest of the day is spent very agreeably, and some very interesting conversation often takes place.

I have heard many declare, that the extensive commerce which the United States at present enjoy, arising from the particular circumstances of events in Europe, was greatly injurious to the progress of agriculture, which is in fact the most solid source from whence the prosperity of a nation proceeds; and that those who would labour in the fields are now persuaded by sea-faring people to prefer navigation. The proprietors of estates hire the labourers

for the season, from among the white inhabitants; or they make agreements with those who own many negroes, for a certain sum, to cultivate their ground through the season by those slaves. But I have asked, that as there were so many emancipated negroes in the United States, why they were not hired just as well as white people? To this I have always been answered, that they were so negligent in their labour, that even the expences of their keeping and wages were not paid by it. This merits particular attention, particularly from those who are endeavouring to bring on the emancipation of the negroes all at once. If I had staid longer in this country, I should have endeavoured to obtain some further knowledge on this subject.

Another great complaint I have heard, is in regard to the manufacturers and mechanics. It is said, that as they know there are so few in this country, they work with indifference; and while the most part of those who are in the mercantile line live moderately, and spend their leisure time with their families at home, the mechanics have their clubs, where they meet almost regularly early in the evening and stay till late, spending a great deal of money; to maintain which course they raise the price of the articles they make. It is further said, that if the expected embargo should take place, and consequently no articles of foreign manufactory come to this country, it would make things in this respect still worse, as the manufacturers then will take advantage, from a knowledge that every one is in need of their productions. It is therefore expected that the American manufactories will not arrive to any consequence, for a length of time, and not until, by their increase, industry only can secure the mechanics a suitable living, in which case their manufactories may ultimately rise to equal perfection with those of Europe.

As the great speculation of accumulating wealth occupies so much attention, and the employment of so many of the inhabitants of this part of America, they find little time for other instruction.

But this is not so with the fair sex ; many of them are fond of literature, and possess talents for music, and other arts : still that part of education which has for its object the management of domestic concerns, is not neglected, and in families where there are many daughters, these occupations go in general by turns. The American ladies generally possess a fine figure, and a handsome complexion ; but it is a pity that the teeth of too many amongst them begin to decay at a very early age. The custom here of drinking their tea and eating their meals very hot, is most likely the principal cause of this disfigurement, which might, with proper care, be prevented.

But to return to my observations as to the private character of the inhabitants of the United States. I cannot but be of opinion, when a stranger, who arrives in a very unfortunate epoch of his own country, and at the same time personally under very unfavourable circumstances and is assisted at different places in that country, without any advantage being taken of his distress, or any thing demanded more than the security of his word, that the people must have the true feeling of honesty themselves, otherwise they would not trust so much to another.

It is true, on my arrival here several persons shewed much inclination to get acquainted with me, who, by many circumstances, I could discern were speculators ; but I had an easy method of getting rid of them ; by only telling them in what situation I was here, they soon disappeared, and I was never more troubled with them. But as so many Europeans come over for the very purpose

\* An efficacious remedy for preserving the teeth, consists of one ounce of camphire, well pounded and dissolved in two ounces of tincture of myrrh, and when there is a pain in the teeth one ounce of laudanum may be added : mix a few drops of this tincture in a wine glass of water till it becomes of a milky colour, and wash the gums with it, which may be repeated twice a week. This tincture is likewise a good preventative for the gums against scorbutic complaints in long voyages, for which the author can recommend it from his own experience.

of speculation, they need not be surprised at meeting, in their traffic, with so many Americans of the same turn with themselves.

On the twenty-eighth of September we sailed from New York; and, not to trouble you with the narrative of a most tedious voyage, it may be sufficient here to say, that the unfavourable weather we experienced was the most unpleasant of the whole of it; heavy gales of wind, followed by dead calms, whilst the sea was much agitated; and one night the wind shifted so suddenly to the opposite quarter, that the captain said if it had not happened when he was on deck, he could not tell what might have been the consequence. But one day the weather became particularly severe, though when the sun rose the sky was clear, and the ocean had its usual lapis lazuli colour; but some heavy clouds appeared in the north-west, which gradually increased, and spreading over the horizon, involved the rays of the sun, which now appeared through the mist as an enormous red glowing fire ball; the mournful tune of the tempest was heard in the rigging; the ocean changed its colour to a dead marble grey; the waves were rising in different forms as so many sepulchres, and the strength with which they dashed against the vessel made them appear like solid rocks; by the increase of the hurricane they assumed the shape of mountains, on which the foam appeared like the snowy tops of the Alps: the ship was shaken through all her parts; and by the combat of the two powerful elements, our neutral habitation was almost dashed to pieces.

The remark has been often made, that in a sea voyage, only a single plank parts life from death; but the Chinese have contrived better; they have endeavoured to diminish the peril as in the description of Lord Macartney's Embassy to China, the author mentions, that the Chinese have the holds of their ships divided into twelve different partitions, which are all made water-tight, so that if any accident happened to the vessel, by striking against a rock, or springing a leak, the water can only penetrate into one part of

the ship, and therefore does not sink the vessel ; besides, it can only damage that portion of the cargo. The same author observes, that this method might be well adapted for men of war. But notwithstanding its obvious advantages, this mode has not yet been adopted in European ship building.\* Now would it not be advisable to try it first for a packet, where perhaps six partitions might be quite enough to prevent the ship from sinking, in case of any accidents ; and if this ship should not sail quite so quick as another, yet the security of saving the lives of the crew, as well as of a valuable part of the cargo from damage and destruction, would overbalance the inconvenience, and the lessening of insurance, with other considerations, render the plan of infinite consequence.

After this heavy gale of wind the weather became more steady, and we continued our course with a north-westerly breeze till the eighteenth of November, when we fell in with a Papenberg vessel coming from Lisbon ; but the weather was still too boisterous to hear distinctly what the captain said. On the nineteenth we anchored in the Tagus, but were for several days kept under strict quarantine, which regulation, the report of the prevailing disease in the United States made very necessary

Of all the political affairs which now happen here, you will be informed by the public papers as far as they interest you, and therefore, in finishing this letter, I have only to mention, that I intend to remain this winter at Lisbon, and so prepare myself gradually for a northern climate ; but I am unable to express the feelings I already enjoy in the hopes of seeing you, your family, and my other friends soon again.

P. S. At my arrival at Lisbon, the advanced money which I received in the United States was directly repaid, and I have received since, a letter from my banker, Mr.—, in which he informs me

\* Account of an Embassy of the Earl of Macartney to China. By Sir George Staunton, Vol. I. p. 500.

that a mistake had happened with my letter of credit for New York ; and that the direction ought to have been John, instead of H. Th— ; that this gentleman had left New York ; though this was unknown when the letter of credit was sent to me. As unfavourable as those circumstances were, I wish that all travellers to whom such an accident in a foreign country should happen, may meet with such a friendly reception and assistance as I did in North America.



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# APPENDIX;

CONTAINING

ADDITIONAL NOTES AND OBSERVATIONS

ON THE

NATURAL HISTORY OF SURINAM, &c.

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## APPENDIX.

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### ON THE PLANTS, &c. &c.

AGRICULTURE in the West Indies will more rapidly improve, whenever the parental governments shall resolve to appoint some qualified persons in every colony, to make their observations, and to send every year, reports respecting the culture of the settlements where they reside; which reports should be published in a collective form in Europe, and then sent to each of the colonies, for the respective public libraries, or where there are none yet established, then to be deposited in the town-house, where every planter who wished to read them might be admitted, or in leaving a proportionate value, be allowed to take the book home with him for a fixed time: many of the planters would follow a practicable example, if they were accurately informed of what had already been done with profit in other colonies, particularly when the local circumstances of the country where the improvement had been made, was exactly described and stated, so as to shew how the methods used could be adopted in the part where they reside.

A like important effect would be obtained, if particular rewards were offered to those medical men who, during their long residence in the colony, have made some new discoveries in the nature and cure of tropical diseases; which reports of facts should in like manner be printed in a periodical publication for the use of the West Indies. Had such a plan been formed at an earlier period, many valuable discoveries, which are now lost, might at present have been pursued to the most beneficial consequences. For example, there was some years ago at Surinam, a Dr. Schilling, of

whom it is reported, that not only by his many years of practice in the colony, but from his great intimacy with the Indians, he learned from them the virtues of many valuable medical plants; and though he was not induced to publish his discoveries for his profit, as he was possessed of a large fortune, yet, from what I have learnt of his character, it seems likely that if a flattering reward had been offered him by government, he would have been prevailed upon to have made known the information which he had acquired, but which is now unfortunately lost by his death. Those medical men therefore who now arrive at the colony, are obliged to try their own system of curing the disorders, in a climate which differs so much from that from whence they came.

I expressed my surprise to the most able apothecary at Surinam, that so few of the native plants should be used in their pharmacy, and that in particular those herbs, roots, or barks, which come from the East Indies, risk loosing much of their medical virtue during the long voyage to Europe, before they come to Surinam; it would be of considerable importance to find substitutes for them here, whose qualities might, upon trial, prove such as to render useless the importation of the others. "Very true," replied the apothecary, "but who will pay us for the time, and indemnify the expences which we must unavoidably incur in the pursuit of these objects?"

The following list I have received, as being the principal indigenous vegetables employed for medical use at Surinam.

Simaruba, of which the bark is generally used as a tincture; it has a pleasant bitter taste, and esteemed a specific against the dysentery, and strengthens at the same time the stomach. The simaruba tree is said to resemble much the European apple-tree; but its blossom is of a violet colour, and possesses a penetrating unpleasant smell, the fruit is of a red colour, of a globular form, and divided into partitions like a walnut.

The Physic-nut shrub, which grows about six feet high, has its stems slender and knotted; the leaves, which arise on the top of the branches, are oval, and slightly indented; the blossoms are of a red colour, which leave a nut whose shell is not strong; the kernel is of the size of a large filbert, the inside of which is divided into four parts by thin white skin, which has no taste; but when it is not peeled off, it occasions a strong purging, and if

eaten in any quantity is said to produce vomiting. Of the first quality I can speak from experience; and as this skin has no ill taste, this remedy may be recommended to those who shew an aversion to other medicines.

The Castor-bush is said to be of two sorts, but in reality they seem only to differ in the colour of the stem; one of which is green, and the other of a reddish colour; the bush grows near six feet high, its stalks jointed, the branches are covered with large leaves about nineteen inches in circumference, and forming nine or ten sharp pointed divisions, spreading out in different directions; the flowers contain yellow stamina; the husk which incloses the nut, when ripe, is of a dark brown colour, of a triangular form, and covered with a light fur, of the same colour as the husk: the oil which is extracted from the nuts at Surinam, is not of such a clear appearance as that made at Barbadoes, which seems occasioned by a different mode of making it; one is said to be made by boiling the nut; that at Barbadoes is by extracting the oil from the nut by the heat of the sun. This medicine merits strong recommendation to new-comers in the Tropics, who should take a portion of it at every change of the season.

The Quassia-tree, whose virtue was first discovered at Surinam by a negro, in respect to whose memory it bears this name. The taste of this medical root is a strong bitter, and its power as a tincture for strengthening the stomach is well known in Europe: at Surinam it is in much esteem as a remedy against the intermitting fever; but those who use the quassia without precaution, and too frequently, are said to be much affected with violent headaches, and become liable to paralytic diseases.

The Ipecacuanha grows plentifully at Surinam; the roots used as an emetic are slender, with strong fibres; the green stalks of the bushes grow above two feet high, the leaves are in proportion large, smooth, and pointed, the blossoms are of a reddish yellow colour, the fruit is oblong and pointed, above two inches in length, inclosed in a smooth green husk and contains a number of small flat seeds, of a brown colour, joined by a fine silky filament.

The Ginger, well known by its medical virtue in Europe, is supposed to be indigenous to Surinam; a pleasant drink is made by fermenting the ginger with sugar, and perhaps to those who are much accustomed to use strong spices in the Tropics it may be a wholesome liquor.

The Sarsaparilla plant is found in the colony of Surinam ; but its medical virtue is thought inferior to that which is brought from the Spanish colonies ; perhaps the difference is only owing to the soil ; and in the more interior parts of Surinam, in the mountains, the sarsaparilla may acquire more vigour, and consequently possess more medical virtue.

Many of the aromatic medical shrubs, which are planted in European gardens, are likewise cultivated in Surinam, and are equally good, as the sage, rosemary, balm, &c.

It is necessary to be particular in cautioning new-comers against the fruit of the manchineel tree ; which tree grows to a considerable height, and its stem is near two feet in diameter, with many branches : the leaves are small and round ; the wood is much esteemed for its strength and durability ; but the milky juice of the bark when it touches the skin raises large blisters, and the fruit, which has the form of an European apple, when full ripe is of a pale yellow colour, and if eaten occasions most violent inflammations in the bowels, and inevitable death, if a proper remedy is not immediately taken. This remedy is said consists of sea-water mixed with the juice of lemon, and of the fig and white wood ; it is further said, that many sailors coming on shore, have often been tempted by the fine appearance of this fruit, and have died of it ; the inhabitants of Surinam relate, that when the Indians make long journeys into the distant parts of the country, where they expect to find different species of fruits unknown to them, they take a monkey with them, and if they see he does not refuse to eat of the fruit, they readily partake of the same, being convinced that the eating of it will do them no harm.

To proceed next to a description of the most valuable timber trees of Surinam.

The first is the Locust-tree, which is often found eight or nine feet in diameter, and grows to the height of from sixty-five to seventy feet, the branches beginning to spread in the highest part of the tree ; the leaves, which are numerous, are oval, about three inches in length, and of a dark green colour ; the blossoms are of the papilionaceous form, with a long flat pod, in shape like the husk of a broad bean ; it is of a strong texture, about four inches long, and of a brown colour when ripe ; each pod contains three beans, also of a brownish colour, which are

of a farinaceous consistence, of a pleasant sweetness, and taste so different from other fruits, that they might be mistaken for the composition of a confectioner. The bark of this tree is of a light gray colour, and smooth; but its wood is a bright brown intermixed with dark veins like marble, and takes a finer polish than mahogany; it is therefore used by the colonists for making elegant furniture, and, on account of its remarkable strength, the rollers in the sugar mills are made of it. The gum-copal is said to flow from this tree.

The Letter-wood is still more beautiful in its colour, which is of a reddish brown mixed with black spots, which some imagine bear a resemblance to the Egyptian hieroglyphics, and others to letters. There is another wood of this species of a lighter colour, and the dark spots are less variously shaped; but both sorts can only be used for making walking sticks, segar pipes, and small utensils, as the fine part of this wood is only taken from the heart of the tree, which is found no more than ten or twelve inches in circumference. In course of time this wood becomes dark. It is said this tree grows above the height of twenty five or thirty feet; it is covered with a reddish brown bark; the leaves are of a middle size, narrow, and pointed; and the flowers are said to be pentapetalous, and of a purple colour, which changes into a red berry.

Of the Iron-wood tree there are at Surinam two sorts, one white and the other reddish; but as their colour is not remarkably bright, the wood is only used for buildings on account of its remarkable strength, which has procured for it a comparison to iron. However, this timber must not be exposed to the wet, otherwise it soon begins to rot. The iron-wood tree is common in Surinam; it grows to the height of about fifty feet, and six feet in circumference; the bark is of a white gray; the leaves, which are about three inches in length, and one and a half in breadth, are of a light green colour; the flowers are white, and change into red berries.

The wood of the Bollo-tree is of a dark dull reddish brown colour, but highly esteemed for all sorts of buildings, as it is not only strong and compact, but resists the wet perfectly well. This tree grows about fifty feet in height, and near six in diameter; it is covered with a smooth bark of a gray colour; of the branches, which only grow in the highest part of the tree, those which are the largest are cut into shingles for covering

the houses, and are said to last above twenty years; the leaves of this tree are long, and become narrow towards the foot-stalk; the flowers are said to consist of five petals, of a purple colour, succeeded by blue berries.

The Purple-heart tree, when fresh cut down, is of a dark reddish colour; but its wood, when the sap becomes dry, changes into a fine purple. This wood, by its handsome colour, as well as by its durability, serves to make most elegant furniture; but in course of time it grows darker, and becomes at last as black as ebony. This tree grows to the size of about sixty feet high; its bark is of a dark brown colour; its branches grow on the highest part; the leaves are of a middle size, oval, and of a dark green colour; the blossoms are said to be of a reddish colour, consisting of five petals, and succeeded by small red berries, which contain the seeds.

The Green-heart tree has its name from the interior part of its wood being of a greenish colour; but there is another sort, the colour of which is of a yellow cast. The wood is esteemed for its durability; its leaves are large, narrow, and pointed, and, what is seldom found in this part of the world, it is said that this tree changes its foliage twice in the course of a year; the flowers are of a yellowish white colour, tetrapetalous, and succeeded by a small farinaceous fruit, of which, it is said, the Indians sometimes make bread, but of an insipid taste.

The Cope-tree grows about the height of forty feet, and eight feet in circumference; its bark is of a rough texture, and of a light gray colour. The tree is divided into many branches, and the leaves are smooth, about four inches in length and two in width, and of a light green colour. The wood is esteemed as being light, and not difficult to work; its colour is of a light brown, and almost all domestic furniture is made from this wood.

The Cedar-tree of Surinam is greatly esteemed, as it is of a fine light brown colour, possesses a fragrant pleasant smell, the taste is bitter, and is therefore not attacked by insects, and is easily worked; its leaves are flat and oval, not like the common cedar. In all my walks in the forests of different wood plantations in the colony of Surinam, I never saw a tree that had any leaves like those belonging to the species of the pine.

The Mangrove-tree, of which there are two species, the red and the white: the former is the first tree perceived on coming to the colony of

Surinam, as it grows along the coast and the banks of the rivers, requiring a low and wet soil, and the greatest part of the roots run along the surface of the ground ; its wood is esteemed as being very durable ; the bark is of a light gray colour, but the interior part is red, and useful for tanning leather ; its leaves are about four inches long, and two wide, oval, and of a dark green colour ; the flower is small of a brownish colour ; its calyx consists in four petals, succeeded by a brown flat bud, which contain the seeds, and are of the shape of beans ; but what is peculiar to this tree, is, that from a number of its branches ligneous shoots above two inches in circumference, of a very tough texture, and which have neither branches nor leaves, shoot down towards the ground, and as soon as they reach the earth take root and a new tree grows up, forming together an almost impenetrable forest, not only securing one another in time of inundation, but strengthening at the same time the banks of the rivers, so that the violent currents cannot break through. The admirable intention of nature in the formation of this tree is the more perceived, as the white mangrove tree, which grows in the higher part of the country, where no inundations take place, has not this remarkable quality, as it does not need these supports.

The Silk-Cotton tree, of which the Indians make the largest canoes, is said to grow sometimes to the height of one hundred feet, and to be above twelve feet in diameter ; its roots spread along the surface of the ground to the distance of fourteen feet and more ; the trunk is covered with a light gray, and very thick bark, and set with short prickles ; the branches, which only grow in the upper part of the tree, have oblong but narrow leaves, which it sheds every year ; and when the tree is uncovered there appear a number of plants growing on the branches, which are called by the natives the wild pine plant,\* and give this tree a very singular look. The blossoms of the silk-tree, it is said, appear only every third year, and consist of a green calyx, with five white folliculi, and the petals, with five stamina ; this blossom is succeeded by a bud which contains a fine silky cotton of a grayish white colour, but of too short a texture for the manu-

\* The leaves of this plant grow in the shape of an aloe, and it is said that the partitions between the foliage are always filled with a fine clear water, which serves the birds in the dry season as a natural cistern.

factories : it is used, however, for stuffing matrasses, and the humming birds line their nests with it.

Of the Palm-tree, it is said there are fourteen different species in the colony of Surinam : the wood of each is strong and durable, particularly good, and easy to be made into tubes or pipes for the conveyance of water, as the middle part of these trees has a cavity filled with a pithy substance.

The Royal Palm, which is vulgarly called the Cabbage-tree, is said to grow to the height of one hundred or one hundred and twenty feet, and from six to seven feet in circumference, very straight, and its bark of a light gray colour, shaded at first with dark gray rings, the tree gradually tapering to its summit, where the leaves begin to spread in the form of a plume of feathers, and the largest of them are about two feet six in length, and above two in width, in the upper part of the trunk, where the bark changes from the gray colour into a lively green, the blossom rises in shape like that of the reed cane, and on which the seeds are attached in the shape of a small nut ; from the middle of the foliage grows a kind of spear of a bright green colour, which contains the substance called the cabbage, but which partakes more of the taste of a sweet almond ; it is often prepared as a vegetable, but when taken too frequently is said to occasion a diarrhœa, except it is well seasoned with spices ; this substance is likewise made into a fine pickle. Some of the inhabitants of Surinam pretend that these trees shelter the house round which they are planted, from lightning, being a natural conductor.

The Palisade-tree, which is looked upon where it grows as indicative of a very good soil, and is plentiful in Surinam ; is the smallest species amongst the palm-trees, but very much used for furnishing the side walls of the negro houses, and even in general for the first dwelling houses of a new planter. This tree is in general found growing from twelve to fifteen feet high, but its diameter is only from seven to nine inches ; the inhabitants split it into many staves, and the top of the tree furnishes them with a fine cabbage, but the stalk on which the seeds grow is used as a broom.

The Troolies are the most esteemed for covering the roofs of buildings in the country : these leaves grow from a small fibrous root, from which arises eight or ten stems, each producing a leaf about twenty feet long, and two

feet broad, of a strong texture, and straight fibres, growing in erect lines, which render them very durable to cover the houses.

Our attention is next to be directed to the principal fruit-trees, shrubs, and bushes, growing at Surinam.

The Banana merits the first consideration and a more minute description, as it is the principal nourishment of the negroes, and of the Indians, and even many of the white people themselves prefer its fruit to wheaten bread, which has occasioned several travellers to fall into the mistake that this is the bread-fruit tree, from which it differs very much.

The banana, which is a plant growing to the size of ten feet in height and about eight inches in diameter, is best cultivated in new and humid land; its stem consists principally in a number of husks, one on the other, of a light green colour, and of a very juicy texture; on the top grow the leaves, about four feet long, and one and a half in breadth, which have made some suppose that they served our first parents for their original dress; these leaves are on each plant about eight or ten in number, and of a lively green colour; from the centre of this foliage grows a cylindrical stalk about three feet in length, and ends in a spatha, which is of a purple red colour, in the shape of a heart, surrounded by hermaphrodite flowers of a red colour; the blossom is succeeded by a bush of fruits, in number from fifty to sixty, but those nearest the point of the stalk do not come to any perfection; the fruit grows in the shape of a large cucumber, the skin green, and when ripe yellow; the fruit when half ripe and roasted serves for bread, when dried in the sun and pounded to a flour it is called gongo tea. The banana, boiled and pounded, is made into a pudding, and then stewed with meat, fish, or crabs; and when the fruit becomes full ripe it is of the taste of a very fine pear. The goats are fond of the stems of the banana shrub, and these form the best provender that can be taken for them on board of ships sailing from Surinam.

The banana bears fruit only once, and then it is cut down, whilst several young shoots grow around the stem, and in the course of nine months produce fruit; but the ground where the bananas grow must be well guarded, as all animals which live on fruits prefer this to every other.

The Bacuva is a species of banana, but the fruit can be known from the other by the green stem being of a swarthy hue; its fruit also is less than

half the size of the banana; when ripe it has a rich flavour, and is also made into a fine dough. I have had them, when they were half ripe, roasted like the banana; but they taste then very indifferently, as this fruit does not consist in such farinaceous particles as the banana does, which render it proper for bread.

The Avigato-tree is about thirty feet in height; the leaves are broad, pointed, rather thick, and of a dark green colour; the flowers, which are said to grow on the extremities of the branches, and to be hexapetalous, are succeeded by the fruit, which is first green, but when full ripe of a purple colour; the pulp is white, soft, and is eaten in general with pepper and salt, being compared in taste to marrow; it certainly differs from all other known fruit in flavour. The fruit contains a large stone of a dark brown colour, and the juice of the kernel is used for marking linen.

The Zour-Zack grows on a tree which resembles much the European pear tree; the fruit is of the shape of a middle sized melon, but of a more oval form, of a light green colour, and covered with soft prickles; the pulp, which is white, has an acid taste, but when mixed up with sugar and water it has not only the pleasant taste of lemonade, but a richness of flavour which may be compared to the finest cream; and this beverage is greatly recommended in violent fevers.

The Mammy is much esteemed for its excellent fruit; but I do not recollect that I ever had an opportunity of seeing the tree, or of tasting its fruit.

The Guava-tree grows to the size of about eighteen feet; its leaves are rough, running to a point, and of a dark green colour; the blossoms are white: the fruit is first green, and then of a light yellow colour, and of the size of a middle sized European apple, which it also resembles in shape; the pulp is of a soft substance, of a reddish colour, and intermixed with very small hard seeds; the taste of this fruit is pleasant, and it is much used in Surinam to make marmalade. There is another species of guava fruit at Surinam, of which the pulp is white, but resembling the other in taste.

The Poppau-tree, of which there are two sorts: the male bears no fruit, and is distinguished by the foot stalks on which the blossoms stand,

being about two feet and a half in length. The female Poppau-tree grows about fifteen feet high, and is eight inches in diameter; but its trunk is hollow, and its interior part pithy like the palm-tree: the trunk is covered with a bark of a light brown colour; the leaves are large, above three feet in circumference, and have a resemblance to that of the fig tree, but are much stronger and more pointed; they are supported by hollow green foot-stalks, near two feet long, rising in clusters from the highest part of the tree, and are seldom more than twelve or fifteen in number; the blossoms, which grow likewise in clusters, are said to be pentapetalous flowers, of a pale yellow colour, fragrant, and used for sweet-meats and making confectionary; the blossom is succeeded by a fruit of an oval form, and about six inches in length; when full ripe they change from a light green to a bright yellow; but the fruits are in general gathered before they come to full ripeness, and, after extracting the caustic milky juice, they are boiled, and served at table like a vegetable: these are also made with sugar into preserves. The seeds of this fruit when boiled are said to be a good antiscorbutic.

The Cannelle or Cinnamon Apple-tree, of which I have had only the fruit, which is of the size of a turkey's egg, is of a green colour, turns into a violet hue when perfectly ripe, and resembles in shape the pine cone, but the taste is that of a very rich cream, with the flavour of cinnamon

The Marmalade-tree has fruit about the size of an apricot, and almost of a globular form; its skin is strong, and when perfectly ripe, of a yellow brown colour; the fruit when eaten is first divided in the middle, and the soft pulp taken out with a tea-spoon; it is of a red colour, and of the taste of a sweet marmalade.

The Pompelmous-tree bears likewise the name of Shaddock-tree, in commemoration of a Captain Shaddock, who is said to have brought it first over from the coast of Africa, to be planted in the western world. This tree belongs to the genus of oranges, to which the fruit also bears a considerable resemblance, except in size, which is that of a middling melon. Its taste is a most agreeable mixture of an acid and sweet, and a pleasant bitter. There are two sorts, the pulp of one is of a pale reddish colour, and that of the other white; the skin of the latter is particularly thick, and as the climate

of Surinam is not so hot as the country from whence they were introduced, they require much time before they come to full ripeness. The Chinese and Seville oranges grow at Surinam in the highest perfection.

Lemons, which are here called Citrons, are very good, but not planted as the Lime-trees, which latter grow to a considerable height; but when formed into hedges, and regularly cropt, bear no fruit.

The Moupee is said to grow on a tree resembling a plum-tree: this fruit, which is of a dark orange colour, and of the shape of an olive, though much larger, incloses a large oval stone, has a taste of a strong but pleasant acidity, and the fragrancy of its smell is still more pleasant.

The Maripa is a species of palm-tree; the fruit, which is of the size of an apricot, and globular in form, is of an orange colour; it contains a large and very hard stone, which changes to a jet black: of this the negroes make rings; the pulp round it is but small in quantity, and the taste of the fruit liked by few; it is said, however, that a palm-oil of a good quality is made from the kernel.

The Coumou grows likewise on a species of palm-tree; the fruits, which hang in bunches, are about the size of an olive, of a dark blue colour, but of an indifferent taste. Some of the inhabitants of Surinam make from the kernel a beverage, which they call chocolate, but it is very inferior in taste, as the sugar and the spices which are mixed with it, alone give it a flavour.

There are two species of Cherries at Surinam, the Star-cherry, which is about such a size and form as if four European cherries were joined circularly, and pressed close together; each of the four divisions contains a small stone; the pulp is inclosed within a clear, tender, red skin, and the taste is very agreeable, of a mixture of a sweet and acid, combined with a peculiar aromatic flavour. The other sort is of a globular form, of a scarlet colour, and of the size of a common European cherry; the fruit has not much flavour, but serves to make a good conserve. Captain Stedman was of opinion that European cherries could not be reared at Surinam, on account of the thinness of their skin; but this cannot be the real reason, as the last two mentioned articles prove that fruits of that kind are indigenous; but it seems that the European cherry-trees would be too much weakened by constantly bearing blossoms in that country,

which would prevent the fruit from setting. It is said that the Star-cherry tree at Surinam produces fruit every three months.

The Mispel or Medlar, is a high growing bush, with small pointed dark green leaves ; the fruit is of the size of a pigeon's egg, and in form like the hip of the wild rose ; the colour is a light yellow, but changes into red when perfectly ripe, and containing no hard stone ; but the taste of the fruit may be compared to raspberry cream : it is a very delicate fruit, and cannot be long kept.

The Marcuses grow on a high shrub ; the leaves are marked with strong furrows, sharp pointed, and of a light green colour ; the blossoms resemble, it is said, the passion flower. There are two species of Marcuses at Surinam, the one of the shape of a lemon, but much larger, and of a dark yellow colour ; its pulp resembles much that of the gooseberry ; the fruit when prepared for eating is generally cut through the middle, and mixed with wine and sugar, when it becomes a most pleasant jelly : the other sort of Marcuses are less than half in size ; their pulp is eaten without any addition, sipped out of the shell, and affords a refreshing and most agreeable marmalade.

The Sapadilla, the Tamarind, and the Pine-apple, are already described in the letters. Of the Pine-apple, a most pleasant beverage is made, by cutting the apple into small square pieces, and letting it ferment with sugar and water. The Melons are very good at Surinam, particularly the musk and water melons.

The Grape was in former times, when many of the rich planters resided at Surinam, more cultivated than now ; some vestiges of the vines are still to be found in the gardens ; but the taste of these grapes is rather indifferent ; and it is less to be wondered at, as the soil in the vicinity of Paramaribo is too low and humid for the cultivation of the vine ; which might be done with better success in the more interior and mountainous part of the colony ; and it is likely that the thick skinned black grape of Portugal, which seems to require a great deal of heat, as ripening later in the year than all the other species of grapes in that country, might be the most proper for the climate of Surinam, though perhaps they still might require to be planted under the shade of some trees ; but experience alone could decide this.

Amongst the trees which bear nuts, the Cocoa is the most common at Surinam. The inhabitants like best to take the fruit when it is half ripe, and mix the milky juice with rum and sugar, when it makes a pleasant punch ; but it seems they do not tap the tree to make palm-wine. The Indians, when they come to the town, bring often different sorts of nuts with them, and many of them are the production of trees, the species of which are little if at all known by the inhabitants of Paramaribo.

With regard to the European vegetables, different species are cultivated at Surinam, particularly on sugar plantations, where the beds are manured with trash of the sugar cane ; that is, the remains after the extraction of the sugar ; and the young plants are shaded under baskets, so made as to admit the fresh air to them. The cauliflower, broccoli, cabbage, carrot, and french beans, grow perfectly well here, and the asparagus likewise is said to be good. The potatoes cultivated in the colony are the sweet potatoes, the others are brought from North America ; but among the farinaceous roots, the yams are by many preferred to the best potatoes. The onions grow very small at Surinam, and the large ones are brought from North America. But the cassava merits particular description, as there are two sorts, of which one, when not known and not properly prepared, is a most violent poison : wherefore the directors are not allowed to plant the bitter cassava without a special permission from the owner of the plantation, which they have a difficulty to obtain, as many unfortunate accidents are said to have happened by new negroes mistaking one species for the other. The sweet cassava shrub grows about four feet, and sometimes still higher, the stems are of a red-gray colour, its leaves are large, digitated, and gradually tapers to the point ; the root grows to the size of a foot and more, in the shape of a parsnip ; it is eaten boiled or roasted, and with butter ; the taste is compared to that of a chesnut. The stem of the bitter cassava is said to be distinguished by its being of a deeper red colour, and the root containing in the middle a tough ligneous fibre, but which only runs half through it, whilst in the sweet cassava is runs from the top of the root to the extreme point, and is much larger than in the other species. To prepare the bitter cassava for food, its poisonous juice is extracted by grinding first the root, and then putting it into a press, which consists of a long tube, made by the Indians

of the fibres of a reed, platted in an elastic manner, and this is fastened by one end to the roof, and to the other a heavy weight is suspended, which squeezes gradually out the pernicious juice ; the prepared cassava is then made into flat round cakes, which are baked on hot stones, in which manner they will keep for half a year, and are greatly liked by the Indians and negroes, and even by many of the white inhabitants. The cassava is something in taste like ship-biscuit, only more tender ; by boiling, the poisonous juice looses its pernicious quality, and being afterwards mixed with different spices is served to season dishes.

The Tayes is a root which grows to the size of about a foot and half, and near eight inches in diameter ; it is much used for food among the negroes, but the young sprouts are also esteemed by the white inhabitants, who boil them in broth, when they become so tender as to dissolve entirely ; or they are stewed with meat, or roasted, with an addition of pepper, salt, and lemon juice, in which cases they are reckoned to be very wholesome, and nourishing. The Tayes is produced from seed, as well as by cutting the tops of the roots in different slices, and planting them three feet distant from each other, and they will come to perfection in six months. These large roots being extremely productive, are not only used for the nourishment of the human species, but also for many domestic animals.

It has been a matter of question among the learned, of what complexion our first parents were ; but it might be less difficult, perhaps, to guess at the region which formed the original habitation of the human species. It was probably one bearing a strong resemblance to Guiana, where an eternal summer reigns ; where delicious fruits and wholesome roots spontaneously and plentifully grow ; where man, not yet instructed to make a net, has no more to do than to bruise the Hiarra root, and drop it into the water, and a number of fish soon become intoxicated, and float motionless on the water, to be taken by him. If he finds himself in the midst of the woods, and does not know yet how to dig a well to quench his thirst, he has only to break a sort of wild vine which grows plentifully in those forests, and a cool and clear water drops abundantly from it.\* As soon as he begins to exercise his talents, he

\* The author can speak from his own experience how refreshing such draughts are.

invents the bow and arrow, and whenever he is not inclined to pursue his game at a great distance, he can sit down, and imitate the cries of different quadrupeds that go in droves, or birds which fly in flocks, and soon some of them appear, at which he can easily take an aim. No sooner does he begin to cultivate the land, than the Indian corn is produced with very little trouble ; and no biting winds destroy the blossoms of the fruit trees which he plants around his habitation : he makes from large gourds his bottles, and from the calabas fruit his plates : round the branches of the cacao-palm tree winds a strong web, which not only serves him for his first covering, but the crossing filaments of which it consists give him the idea of inventing cloth, for which the materials, already prepared, hang down in large buds from the cotton shrub. The great bounty of nature to the human species is there so visible, that among the many different Indian tribes which have been discovered in Guiana, it is known that they all believe in one supreme God, who has created those blessings for them ; but they imagine that this Being never interferes with the evils which happen to them, therefore they neglect to supplicate or adore him ; and rather worship inferior spirits, to whom they attribute the apparent convulsions of nature, and all the afflictions which happen to them. Their peii's, or physicians, who have at the same time the function of the priesthood, are constantly applied to for the purpose of appeasing the anger or vengeance of those dæmons ; but one peii is sometimes overpowered by a still greater magician, and the Indian must then submit to his evil destiny, which is regulated by those spirits, who are not only constantly employed in concerting measures for inflicting miseries on them, but are never restrained by the deity, from executing their malignity. Now, with such ideas, which can only lead to insensibility or despair, the present state of the Indians can not be so happy as some writers imagine it to be ; but a better civilization, whereby their minds may become more enlightened, will give them more exalted notions of the great author of nature, juster views of his providence, and a better sense of the duty which they owe to him and to themselves, and thus enable them to make a proper use of the bounties which his goodness has so exuberantly scattered around them.

## ON THE ANIMALS.

IN the sixteenth Letter I have given a description of those animals, most of which were kept and domesticated by myself; those here described I have seen in the possession of other persons, or in the forests.

The Tapir is the largest animal that has been yet discovered in Guiana; it grows sometimes to the size of a small cow, and resembles in the form of its body the hog; but the head and the feet are more like those of the rhinoceros; its snout is long, slender, and extends several inches beyond the lower jaw, and is moveable in all directions; its ears are small, very oblong, and pointed; its back is slightly arched; the legs short, and on each foot are four small hoofs; the tail is very short. When young its hair, which grows very short, is of a darkish brown, intermixed with white spots; but when the animal gets to its full growth, its colour is of a uniform brownish gray.

The tapir lives near swamps and rivers, and feeds principally on aquatic plants, and likewise upon sugar canes and fruits, which it searches for by night. It is a very shy animal, and when it apprehends any danger, plunges into the river, as it can swim very well, on which account it has been taken by several authors for a species of hippopotamus, although it does not seem to be strictly an amphibious animal, seldom plunging into the water but for a safe retreat. This animal can be still less compared to the buffalo, for which it also has been taken, nor to any other of the cattle species, to which it has only a resemblance when drest for the table, where it makes an excellent dish, and tastes, when young, much like beef. Many of the Indian tribes, it is said, use its skin for shields, and I have been assured that it makes likewise the best soles for boots.

I have seen several of these animals domesticated, when they become very tame. A young tapir Major Rupel had, who lived opposite to me, seemed to me as if it would not go into the canal except driven to it, which confirmed me in of the opinion that it is not an aquatic animal. I never could learn whether a trial has been made to breed them when domesticated.

Of the cattle species none are to be found in a wild state at Surinam, as they are in the colonies of Spain and Portugal; nor has yet the buffalo been introduced here, which might become very serviceable to the colony, as this animal can bear a great deal more heat than the oxen, is stronger, likes marshy ground, and, by its thick skin, is less plagued by the insects.

I have often thought, whilst at Surinam, whether a mixed breed of the Peruvian lama and the camel might not become very useful to South America; their great resemblance gives reason to suppose that they might cohabit together, and if both their good qualities were blended, they might surpass in utility even the mule. The horses that are bred in this colony are very few, and in general small, but spirited; however, I have seen one of a very good size and well made, belonging to Baron Nesselrod, and it was said that it was bred in Surinam. It is a general complaint in the colony that the horses are much neglected by the negroes who are appointed to the care of them, and that they also suffer much by the stings of the wasps. From the Arabs, who inhabit likewise hot countries, and take so much care of their horses, we might be informed of the best preventative against those troublesome insects; and with respect to the camels, I remember having read somewhere, that they use an oil for that purpose.

Of the Boar kind there are two distinct sorts, the Bakkire and the Pingo; neither are so large as the European wild boar, though they resemble it much in shape. The Bakkire, as I am informed, prefers living in the high and mountainous part of the colony, and feeds not only on roots and fruits, but also on snakes and lizards; they are very courageous, and when attacked by the American panthers, it is said, they will often beat them off; they go in large herds, and become very furious, particularly when any have been killed; and the hunters at Surinam assert, that as soon as some of the have been shot, they elect directly new leaders to head them against their enemy; but the fact seems to be, that as soon as the most forward of them are slain, those next in strength and courage rush foremost for a new attack, which has occasioned the fable; but a few steps from the ground upon the branch of a tree will secure one from their attack.

The Bakkire, when young, is of a light brown colour, with longitudinal

white stripes ; but when full grown, it changes into an uniform dusky colour, and the hair becomes remarkably bristled, which it raises when irritated. In the lower part of the back it has a small glandular orifice; containing a thin watery humour of an extremely offensive smell, and which must be cut out immediately after the animal is shot, otherwise it will communicate a most disagreeable taste to the meat. As these wild boars live much on serpents, perhaps this humour is given by nature as a kind of antidote which acts upon the blood, when it is stung by a venomous reptile: this, however, it seems, has not yet been investigated.

The Pingo is of a smaller species, and of a more slender shape. These animals likewise go in large herds, but are easy to be domesticated ; and the Indians and negroes when they catch the young ones, tame them to such a degree, that they follow them like dogs, and are then brought for sale to Paramaribo. The meat of both species, though lean, tastes very good, particularly when they are young.

Another species of hog is called the Water-hog : one which I had a full view of, was the size of a half grown pig, the colour a light brown ; the head resembled much that of a guinea-pig, and there were four toes on the fore foot, and three on the hind, which are connected with a web. In the upper part of the river Surinam they are seen frequently towards the evening swimming, with only their heads out of the water, and dive when a barge approaches. The meat is said not to be always equally good, as they not only live on roots and vegetables, but also on fish, which last affects the flavour.

The Cony Cony has already been mentioned in the seventeenth Letter, I will therefore only add, that there is another species of them of a more slender shape, which has a long tail ; and as this animal is very swift footed, it is but seldom caught, and therefore only by few inhabitants known : the one I had an opportunity of seeing was at Dr. Debez's ; it was a very pretty little animal.

The Surinam Porcupine differs much from that of the ancient world ; its quills are about three inches long ; they are of a white colour, but black near the point. This animal has a prehensile tail, and lives chiefly on fruits : its meat is said to be of a very good taste.

Of the Armadillo, or by some called the Hog in Armour, the most frequent brought to Paramaribo, is of a slender form, its body covered with a strong crust of scales or shells, in hexangular figures and of ten distinct moveable bands, but of which the last is only half way upon each side; the head is very oblong; the ears in proportion, likewise long and erected; the claws are sharply pointed; the tail is long; the snout, ears, and belly, which have no scales, the animal covers when sleeping by rolling itself up into a ball. It is a harmless animal, will grow to the length of near a foot and a half, and the tail full as long; lives on roots, ground worms, and other insects; its meat is said to taste like that of a rabbit. The Indians are fond of hunting them; but when the animal tries to make its escape, and is too far off from its own retreat, it will try quickly to make a fresh burrow with its sharp paws; and when the hunters discover the armadillo just in time to lay hold of the tail, it fastens itself with its paws fast to the interior part of the cave, and rather suffers that part to be torn off; but in that case it is said the Indians tickle the armadillo with a stick, when it will soon give way, and suffer itself to be taken from its retreat.

Of the deer kind there are two sorts at Surinam; the first is called the Stag, which is about the size of a fallow deer, which it resembles much in shape, but the antlers or branches to its horns are only few, and the colour of the animal is of a brown gray.

The second species is much like the European roe-buck: when young it is of a light brown colour, intermixed with white spots placed in longitudinal lines; and as this animal is difficult to hunt, living in the most swampy parts of the colony, and being very swift, only the young ones are taken alive, which soon become very tame, when they are brought to Paramaribo; but they do not in general live long enough to change their colour, wherefore it has occasioned the opinion of many that this species of deer is always of a variegated colour; but a mulatto inhabitant of Paramaribo, who by much care had been able to keep one alive for a considerable length of time, found that this animal changed to an uniform light brown colour; it was of the size of a goat, was a female, and had no horns, but of most delicate shape.

Having described those animals which are useful to man in assisting in labour, or serving as nourishment, I now proceed to those which he dreads, and with whom he is in perpetual hostility.

The Jaguar is in general called the South American tiger, and which Count Buffon, according to his system of the difference of the animals of the ancient and the new discovered worlds, has declared to be inferior in size and courage to the tiger of Asia; though it is certain, however, the jaguar cannot be called properly a tiger, but belongs more to the species of ounce; it comes to be about the same size, and likewise of the same shape; has a bright brownish yellow colour, and the top of the back is marked with long stripes of a darker colour, whilst the sides are beautifully variegated with irregular oblong spots, which are open in the middle, and marked with shades of lighter yellow. This animal, it is said, at Surinam, will attack with the greatest courage the strongest ox, and of which fact there are many instances on the plantations. That he is not so dangerous to the human species, it is supposed arises from the plenty of prey which he finds in general in the immense forests, and fortunately prefers the flesh of animals to that of man; but, like the African panther, when he is disappointed in catching any animal, and not fully satiated, he then will fall upon the human species; but it is remarked, in such cases, he rather singles out an Indian than a European. If this is the fact, it may be occasioned by the nakedness of the former, and therefore the animal has sooner the scent of them, and pursues them first. Some Indians brought me a young jaguar to sell; it was not bigger than a full grown cat, and of a very gentle appearance; but the display of his future character being too well known, my landlady came and entreated me not to buy that spiteful creature, which, after having given me much trouble to rear, would at last recompense me with the greatest ingratitude; and I parted with him the more willingly, as the other animals I kept were all of a very tractable disposition, and lived very sociably together, but shewed all of them their abhorrence of this new intruder, and were not deceived by its splendid appearance. The brother of Mr. Limes, told me he had reared up a young jaguar, which used to follow him in the woods with his dogs; but when he grew up he had a dispute with his dogs, in which the latter had much the disadvantage. Mr. Limes

fearing he might loose in this way some of his best dogs, shot the jaguar on the spot. Mr. Baur, whom I have already mentioned in one of the letters, related, that in a tour which he made in the interior parts of Guiana, towards the frontiers of the Brazils. he and the Indians who accompanied him were pursued by a black tiger of an enormous size: they had hardly time to save themselves on a tree, and though they wounded him several times with their arrows, he endeavoured to follow them, and when he found, at last, his strength failing, he made his retreat. It was a pity indeed his skin at least could not be produced, as the size seems to have been rather uncommon: the jaguar crosses the large rivers with great facility.

The Tiger-cat of Surinam is in size larger than a common cat; the colour is of a light gray, the head is striped with black, the body marked with long black spots, being in the middle a gray colour; a young one was reared up by a director, and sent to Europe as a present; its temper was then very gentle.

The common cats were first brought from Europe to Surinam, and when not taken care of, but left to seek entirely for their own nourishment, feed often on reptiles and noxious insects, which makes them lean and sickly: besides, the poison that is often laid for destroying rats and mice, must have a bad effect on the cats who feed upon them. But in those families where they are taken care of, the cats are as fine, and seem to be as active as those in Europe.

With regard to the dogs, Captain Stedman relates, with many other authors, that they lose their barking when brought to South America; but the fact is, at least at Surinam, that whilst they are allowed in the day-time to be in the houses, most of them are turned out in the streets at night, and left in the damp air and heavy showers, where, from wanting to get into shelter again, they begin a most dreadful howling; but for the rest, there are at least many amongst them that bark so much similar to those in Europe, that the most acute ear would find it difficult to distinguish any difference in the tone or expression of their voice. It is true, those dogs kept by the Indians do not bark, but this may arise from the different food, and the manner of rearing them. An Indian would not like to have his dog barking, to chase away from the neighbourhood of his habitation the game on which he so greatly

depends: besides, it is known that of those dogs which become wild again, their young ones bark but little, and those kept by the Indians may be supposed to live nearly in the same manner. The dogs at Surinam, like those in the West Indies, are not apt to get the hydrophobia; but they sometimes catch a distemper, when they fall into fits and die.

Wild dogs of the European breed, such as those in the colonies of Spain, are not at Surinam, but they call several other species of animals Crabo-dagos, (which signifies, in their corrupt English, a dog living on crabs).

The Crabo-dago, properly called so, is about two feet long; the head is large, and the snout full and thick, much in the shape of that of a hyena, but its tail is longer; the colour of the animal is a grayish brown; it lives upon crabs, birds, and fruits, and it is said that when it is eating, it often sits upon his hind legs erect, and holds its food between the two fore paws. If this is not a mistake, it would shew at once its great difference from the canine species. I had only the opportunity of a momentary view of two young ones, which were kept on a plantation at the Warapper creek.

I heard of another species of crabo-dago, which had been brought on board-ship; I went to see it; and on asking the captain what the Indian had called this animal, the captain replied, he had forgot to ask; but no matter, said he, when I come to Europe, the learned there will soon give him a name. He had likewise forgot to ask what was the natural food of the animal; but, continued the captain, "as he is become a boarder of mine he has no choice, but to take what is offered him in the ship." This is the way many of the animals are carried to Europe, and consequently they die on the passage. This animal, which I saw, resembled nearest the European martin-weasel, but was rather larger and stronger made; had a large head, and the tail was long and very bushy; the colour of the animal was black, but towards the head it was intermixed with light gray hair, which gave it a speckled appearance; it seemed to be of a wild and ferocious nature.

Another species of crabo-dago was one which Mr. Limes had bought of the Indians, and which I went to see: this animal was of a yellowish gray, and its fur remarkably thick and soft; the muzzle was short and roundish, with black whiskers; the ears upright, moderately pointed; the eyes

large and black ; the feet furnished with five toes, with sharp long claws ; the tail prehensile ; the whole of the size of a gray squirrel. It is a nocturnal animal, climbs with the greatest ease, and was very tame. A mulatto belonging to Mr. Limes related that the Indians who sold this animal, had mentioned that they obtained this crabo-dago in a very curious manner : whilst they were hunting they heard a screaming in the air, and observing a vulture, they shot it, and when the vulture came down they found this little creature in its claws ; but this unfortunate animal was soon after killed by a dog, otherwise I should have kept it for a while at my house, in order to observe the manner of its living. I received some months after from Dr. Debez, a dead animal, which was much in appearance like the above mentioned crabo-dago, but was of a dark brown colour, and the size of a large cat ; its body long, but its legs short in proportion. An Indian to whom I shewed this animal, called it an Ahjera.

Another species of crabo-dago is also called at Surinam sometimes by the same name of Coati-mondi, as it is called in the Brazils, or Quaci-quaci. Those at Surinam are of the size of a cat ; the head is very slender, the nose and upper lip in the form of that of a musk shrew, though not so pointed, and very pliant ; its ears are short and roundish ; its tail long, and ringed with different shades of a brown colour ; its legs are short, and the paws in the shape of those of a bear. The colour of the animal is of a light brown, and of a glossy appearance ; it climbs up the trees very nimbly, and searches for its food during the night, which seems chiefly to consist of birds and other small animals ; but it will also eat fruit. The quaci when caught young becomes very tame, and likes to play with those with whom it is familiar.

Another animal is called at Surinam a Water-dog, but by the description which has been given to me of it, it seems to be an otter.

The Surinam Fox, of which I have seen a young one which was not bigger than a terrier puppy of about two months old ; it was of a light brown yellowish colour ; its tail was very bushy, and the whole shape of the animal resembled much an European fox.

The Opossum, also called Wood-rat, which has created the opinion in many, that the people at Surinam eat rats, whilst these two species of animals differ very much, in particular as the former have no gnawing

or cutting teeth in front. It seems there are many variations of the opossum at Surinam; those which I have seen in the colony are of three kinds.

The Black-eared Opossum was about six inches long, but seemed not to have attained its full growth; the head was in proportion rather large, and very oblong; its eyes small: the ears large, standing upright, and partly pointed, not furred, but of a black colour, and glossy; the tail long and prehensile, and not hairy; the feet have five toes, with sharp claws, except on the large toe on the hind feet, which is round: the colour of the whole animal is of a yellowish gray.

The Brown coloured Opossum, which Captain Stedman speaks of in the following terms, "Madam Merian mentions one kind of them (opossum), which in time of danger carries its young ones upon its back, but this animal, I confess, I never heard of at Surinam, and am persuaded of its non-existence." *Capt. Stedman's Narrative of Surinam, Vol. ii. page 149, second edition.* But a Dutch lady who lived in the same street with me, sent me one of this species of opossum, which was about the size of an European squirrel; the colour of a dark brown above, and white beneath; its head was small in proportion to the first mentioned species; the ears erect and pointed, of a fleshy colour; the tail very long, and without fur. When this animal was sent me it was tied by the body to a branch, but its five young ones were left at liberty; they were sitting upon the back of the old one, and their prehensile tails twirled round hers: the whole heap looked like so many earth worms.

The smallest species of opossum I saw was at a medical gentleman's, belonging to the navy: it was not above the size of a young squirrel a few days old; its colour of a dark iron gray; over the eyes it had two white spots, the ears, tip of the nose, and the prehensile tail, were of a reddish colour; it was a very tame little animal, and frequently carried by its master in his bosom.

Amongst the animals with cutting teeth, or Glires, the squirrels are the most pleasing at Surinam: one I saw at Mr. Limes's was not full grown; it was about half the size of an European squirrel, its ears and tail not so bushy, and the colour of a grayish red: this little animal was extremely lively. It is said there are also black squirrels in the colony.

No animals are more mischievous than rats, which were perhaps not

known here before the arrival of European vessels, as there seems to be no other distinct kind of them in the colony than the black rat and the large brown rat, which latter are the most numerous, but differ sometimes in the shade of colour ; they are particularly destructive to the sugar canes ; and all the care which is taken to destroy them has but little effect, as the climate is not only so favourable for their breeding, but numerous supplies are yearly brought by the shipping.

The mice at Surinam are exactly of the same kind as those in Europe, and most likely of the same origin ; they are also numerous in the colony.

Of those animals which live on fruit, the Quadromanes are the most remarkable. But it must be observed that there is neither the ourang-outang, nor has any species of the ape been yet discovered in Surinam, though there are several kinds of sapajous and sangouins or saccawinkees.

Amongst the sapajous, the quatta is one of the most extraordinary : it grows to the height of about three feet and a half when standing upright, and is covered with black hair, but the face, which is bare, is of a dark flesh colour ; the animal has but four fingers on its fore paws, and instead of the thumb, a very small fleshy projection ; but the want of the thumb is fully compensated for by its prehensile tail, which is as flexible as the trunk of an elephant, and serves the animal as a fifth hand, with which it can take up the smallest objects. The quatta, when young, is of an extraordinary shape ; its limbs are very long and extremely slender, whilst the belly is as big as if it was swelled ; but when the animal begins to grow more, it becomes covered with long black hair, of a silky cast, and the quatta appears then altogether of a more proportionate shape.

The quatta is of a very docile disposition, and capable of being quite domesticated : I have seen a pair of them at a gentleman's house at Paramaribo, which were left quite at liberty ; when the female negroes were employed at their needle work, they used to come and sit amongst them and play with a piece of paper, and afterwards go out to gambol upon the trees, but never went over to the neighbouring gardens ; and they knew well the usual hour of dinner at their master's, when they would come to the gallery, look in at the windows, though without attempting to enter into the room, being aware that this was a liberty not allowed them,

they therefore patiently waited for their dinner on the outside. A gentleman who is fond of shooting told me he was once in the woods, and when about to return home he met with some quattas, and thought to fire at one ; but the moment he levelled his musket the creature erected itself, and called out Ho ! ho ! in a manner so much in imitation of the human species, that it immediately disarmed him.

Of the Howling Baboon, or Rattler, I had heard many times, but could not get a sight of them, I therefore promised a reward to a mulatto hunter to procure me one ; but he told me, that to get them alive was very difficult, and even to shoot them, as this creature is so very cunning, that on perceiving a pursuer, it retreats behind the trees ; and with a serious countenance the mulatto continued to say, " when the baboon is sitting and preaching before the others, I would not shoot him." Even when one of them is mortally wounded he twists his tail round the branch of the tree, and thereby prevents his falling down. Sometimes three or four pair go together, one of them makes a howling rattling noise, whilst the others seem to listen to it, and then afterwards they join in chorus : this the natives call preaching. At last a dead one was sent to me, which was about two feet and a half high when erected upon its hind legs ; its face was bare, and covered with a black skin, and had no beard ; the inside of the hand bare, and of a black colour ; its prehensile tail was of a considerable length ; and the whole animal of a bright feruginous colour. The cartilaginous organ for making the rattling noise was near five inches in circumference, and in the form of the cup of a wine glass, of which the upper part was turned to the wind-pipe, and surrounded with many membranes, which the animal has the power of closing and opening at his pleasure, and producing by them all the different modulations of his rattling voice, and which is heard at a considerable distance. This noise the animal begins in general in the morning before sun-rise, and in the evening after sun-set ; but at spring tides it is observed they are heard almost all night, so as to constitute for many people a kind of almanack. Dr. Ditz told me at Surinam, that a negro brought him from the woods a young baboon alive, and an old one dead, without having had a gun or any arms with him, and that the negro related the circumstance in the following manner : in passing

through the woods he frightened a female baboon so much, that the young one dropt down from her back, which he immediately secured ; the old one returned in a moment and shewed the greatest anxiety to get it again ; the negro presented the little one to her with one hand, whilst he hid behind him in the other a strong stick, and when the female at last came down from the tree to take the young one, he gave her such a blow with the stick that it soon died. I saw the skin of the old one, and the young one alive ; it was of the size of a full grown squirrel, and of a chesnut colour ; but it died a few days after it was taken ; and it is said, that this species of sapajou never lives long in confinement.

The Brown Sapajou, of which the face, arms, and tail, are black, is in general of the size of a cat ; but some are of a larger size. This species is frequently kept by many inhabitants at Surinam, on account of its vivacity and playfulness, and it lives long.

The Gray Sapajou is larger in size, but resembles much in shape the brown one, but is seldom brought to Paramaribo.

A more rare species of sapajou is sometimes brough by the Indians from the country of the Upper Saramacca river: it is about the size of a cat, the tail about the same length, the general colour is a brown, but the head, face, and hands, are black. The hair from the crown of the head spreads out in a circular direction; the chin is edged with a short beard; the face is rather flat; the cartilaginous partition of the nostrils is remarkably broad. This creature is of a mild, but shy disposition.

The Keesee-Keesee is considered the prettiest of the sapajous: it is in general of the size of a half grown cat; its form is elegant, and the head is small and round; the face is of a flesh colour, and covered with short white hair; its eyes are large, black, and lively; the tip of the nose and the mouth are surrounded with black hair. The general colour of this creature is of a bright gold yellow, shaded with brown, the under part white; the hands and feet are of an orange colour, the tail is slightly tufted at the end, of a black colour, and which the creature hangs over its shoulder when at rest. The keesee-keesee is frequently kept by the inhabitants of Surinam on the plantations, and when taken young, becomes so well domesticated that it can be left at liberty to sport in the vicinity of the

habitation, and is said will not desert it, and particularly when a pair of them are kept. They are very gentle and lively creatures, but when confined in a room or by a chain, they lose their activity, and do not live long.

I have only seen one black Saccawinkee with a white face, and that had been just shot, and of which the skin was promised me to stuff, but I never received it. This saccawinkee was about the size of a large cat, with long black hair, the face very flat, and covered with white short hair, the nose flat and the eyes deep; it would best answer to the name of saccawinkee, or *Semia-mortis*, which Linnæus has given to another species. The tail of this animal was very tufted.

The Wanacoe, or the bush-tailed brown Saccawinkee, is covered all over with long brown hair, which turns on the head towards the face; its tail is much like that of a squirrel, and the animal is about the size of a full grown cat. I kept one for several months; it was a very docile animal, seemed not to like any confinement, and was of a melancholy disposition.

The Large-eared Saccawinkee is called by the Dutch the Chagrintee, on account of its being soon offended, and put out of temper; it is only about eight inches long, and the female is of a still smaller size; the tail is near a foot long; its face is round, the nose high between the eyes, and flat towards the end, the upper lip divided like that of a hare, the eyes of a dark chesnut colour, and the ears very large in proportion to the body, the colour of the animal is black, intermixed with some yellow hair, the four hands to the elbows are of an orange colour, the face is in general black, though there are others with a white face, but they seem not to be a distinct species, as there are some others also whose faces are black and white; there are those again found entirely black, which are rather smaller in size. Captain Stedman has given a description, and an engraving of the white-eared, and ring-tailed Sanguin, or the Ouistiti of Buffon, and pronounced it to be a native of Surinam; but notwithstanding all my enquiries, I could not learn this; and some of the inhabitants, who are very fond of keeping those sort of animals, assured me, that if they knew where to get these pretty creatures in the colony, they certainly would have them; however, Captain Stedman might have seen one, that might have been brought from the Brazils, as sometimes, in particular circumstances, ships from thence will touch at Surinam in their passage to Europe; and perhaps it

might likewise exist as near to the colony as Cayenne ; nor are the marikina, the pinche, and the mico, natives of Surinam.

The very large rivers which divide South America in many parts, and which small animals cannot venture to swim over, is probably the reason, that one species shall be found to exist on one side, while it is not to be found on the other.

We proceed now to those quadrupeds which live entirely upon insects, and are covered with a fur, forming the class of ant-eaters.

The greatest species of ant-eater at Surinam is about two feet high, and four feet long ; the head is narrow, and the snout forms a long tube destitute of teeth, instead of which there are some bony parts at the lower end of the jaws, which serve him sufficiently to masticate his food, which he takes by extending his long and round shaped tongue into the nest of the insect ; and then the ants adhere to the tongue, which is covered with a glutinous liquid. Although this animal has no teeth, it is very powerfully guarded for its defence by its paws, to which are connected four large claws on the fore, and five on the hind feet ; and it is said that it will beat off animals of a larger size than itself. The colour of this animal is brownish, and the hair of a coarse nature ; on each side of the neck is an oblong band of a dusky colour, inclosed by a white stripe, which crosses the shoulder, and passes towards the lower part of the back ; the tail, which is about two feet long, is covered with long hair, much of the texture of those in a horse's tail. This animal is very expert in swimming, and often crosses the largest rivers.

The middle sized Ant-eater, is about 18 inches from nose to tail ; the shape of the animal is much like that of the former species, but the fur is of a uniform gray colour, the tail not bushy, and is prehensile.

The third species, or the smallest of these animals, I have had already an opportunity of mentioning in my sixteenth Letter.

Of Bats, which form a link between quadrupeds and birds, there are different species at Surinam ; the largest of them I have already had occasion to speak of in a letter ; the next in size is of a dark colour, almost black ; the body is of the size of a half grown rat, and the shape resembles much the same animal ; the wings measure, when extended from point to point, at least ten inches.

There is a small kind of bat that flies as soon as it begins to grow dark, and pursues with great swiftness the flying insects: but there are fortunately at Surinam none of those very large sized bats which are found in many other parts of South America, and which, it is said, destroy a great number of cattle.

The Two-toed Sloth, called at Surinam Dago-Luyaree, or Dog-Sloth, I had but once an opportunity to see, of some Indians who brought one to Paramaribo. It was about one foot and a half long, the head was of a roundish form, and the snout long, resembling that of a dog, the hair on the forehead is directed backwards, the eyes were of a brown colour, the body covered with long and straight hair, the fore-feet had but two claws each, and the hinder ones three; the animal of an uniform brownish gray colour. The sloth was tied close to a stick, on which it was sitting, but it is said that this species of sloth is not so tardy in its motion as the three-toed one.

Of the Three-toed Sloth, there is already given a description in the sixteenth Letter, and therefore I shall only add in this note, that observing the sloths which I kept appeared somewhat more animated towards the evening, and took more food than in the day time, confirmed me in the opinion that the sloth is a nocturnal animal; and, for the sake of an experiment, I had one carried to the forest after five o'clock in the evening, and put to the trunk of a tree of a considerable height, which was not too much shaded with leaves, when I saw the sloth crawl up to some of the higher branches in the course of ten minutes: it is true this is employing a considerable time for a distance which a monkey or a squirrel might have gone over in so many seconds; but as this sloth had been in a confined state for several weeks, it may be supposed that a vigorous one could do this task in a still less time. Anatomists have found that the sloth is a ruminating animal, and has four stomachs, and as the camel is particularly organized, to be enabled when traversing the deserts to abstain from drinking for many days without suffering the least from it, so the sloth, in their tardy journies, can remain long without any nourishment. I have found those I kept sometimes not taking any sustenance for several days; but the celebrated traveller Kircher, relates an instance where one remained without taking any nourishment upwards of

forty days. If the sloth is attacked by another animal, it possesses the most formidable arms for its defence in its strong muscular legs and its long and sharp claws ; and the hunters take care their dogs do not pursue a sloth, as they frequently perish in the contest ; and thus has nature provided for the safety of the meanest creature in appearance, against the attacks of a most sagacious animal.

### ON THE BIRDS OF SURINAM.

AMONGST the birds that live on fruits and seeds, the Poweese is the most esteemed in the colony ; it belongs to the pheasant kind, but is near the size of a turkey, and of a slender shape ; its head is ornamented with a curled crest of feathers, the colour of the bird is black, the beak and legs yellow. The poweese is easily tamed, feeds with the other poultry, and in taste is very much like that of a turkey.

Another species is called the Marray ; it is smaller, and though likewise of a black colour, has a white crest of long feathers laying flat, and two gills of a red colour, like that of the game-cock ; the beak and legs are of a horn colour. This bird is easy tamed, and is very good eating.

The third kind is the nearest in its shape to an European pheasant, but more slender, and stands higher on its legs ; it is of a reddish colour, with other different shades. This bird is of a very fine flavor.

The Partridge of Surinam, called Anamoe, is of the same shape as the European partridge, but much larger ; it is of a dark brown colour on the back, wings, and top of the head, the under part of which, as also the breast and the thighs, are of a cream colour, intermixed with orange and black feathers, forming several small transversal bars : the form of the body is oval ; it has no tail, the neck is long, and the head small, the bill rather short, the point a little bent, the eyes black, the thighs rather short, the legs of a red colour, with three small toes on each foot. This bird, it is said, flies very heavy, but runs extremely swift, and then hides itself among the bushes, wherefore it is difficult to be shot ; its taste is most excellent.

The Camy-Camy bird is in form much like the Anamoe, but its head is rather larger in proportion, and the bill stronger ; the bird is nearly of the

size of a turkey ; its colour is black, except on the back, where it is gray, and on the breast it has long feathers of a shining bluish green ; the eyes are black, the bill is of a horn colour, as are also the legs, on which it stands very high. This bird is likewise called at Surinam the Trumpeter, as it makes a sound which bears some resemblance to that instrument, heard at a great distance : this the bird performs without opening its bill, in the manner of a ventriloquist. I had not an opportunity of obtaining a dead one, to see if the throat is of a particular construction. The bird is frequently kept by the colonists, as it becomes remarkably tame, and follows its master, liking to be caressed by him, and shews a great deal of attachment to the human species in general.

There is a wild fowl at Surinam about the size of an European moor fowl, to which it bears a resemblance ; but its neck and legs are rather longer, and the colour of the bird is of a brownish black, the bill and legs of a horn colour. There is another species of a smaller size, and a more slender form, and of a black colour : their cries are frequently heard in the morning and evening in the woods, which, it is said, the Indians imitate exactly, and make them by this approach so very near as to shoot them easily.

There is a dunghill fowl at Surinam, of which the points of the feathers are all turned outside, and have a curled appearance ; it is thought by some inhabitants, that they were first brought by the Indians from the interior parts of Guiana, and therefore are thought to be natural to South America ; but these fowls seem not to differ from those well known in Europe with such feathers ; perhaps the Indians got them from the Spaniards of the adjacent countries.

There are many of the dove species wild at Surinam, of which I had opportunities of seeing five different kinds.

The largest is about the size of an European large wood pigeon, but rather more slender ; it is of a light gray colour, but the feathers on the neck are shaded with light and dark, brown and yellow, somewhat in the manner of scales, intermixed with a bright shining purple colour, whilst others have a tint of green ; the bills and legs are of a horn colour.

The second kind is of the size of a turtle dove, of a reddish brown colour, the eyes black, the bill and legs of an iron gray.

The third kind is half the size of the former, of a light blue gray colour, the bill and legs black.

The fourth is of the size of a thrush, and of a cinnamon colour, eyes black, bill and legs of a horn colour.

The fifth is of the size of a sparrow, of a gray colour; the male has the neck and breast of a light lilac colour, with a blueish purple shade, and spotted; the eyes are black, the bill and legs of a whitish gray colour. They rather choose to run on the ground than to perch on trees, on which account they are called Stone or Ground doves: they make a very soft plaintive noise, and are easily tamed, and fed with fine pounded Indian corn; they are fond of the seed of the cocks-comb or celosia.

Amongst the birds of prey at Surinam the Crested Eagle is very remarkable; the British post-master at Paramaribo received one from an Indian. It was but a young bird, and yet surpassed in size the European black eagle; the head was much larger, and was ornamented on the top with four long feathers, which the eagle when angry erects; the colour of the bird is of a light gray intermixed with dark shades, the bill and the legs, which are very stout, are of a yellow colour, the eyes very large and black. It was said that this eagle would eat a large turkey with the greatest appetite at one meal.

The Vulture is distinct from the eagle by having the head without feathers, or thinly covered with down, and a strait bill, with a crooked point, and clove tongue.

That kind called the King of the Vultures, is sometimes, though rarely, brought to Surinam by the Indians from the interior parts of Guiana; it is of the size of the black eagle; the colour is white, with a reddish cast; the wings are black, the head and neck are without feathers, of a fine orange and rosy colour differently shaded; over the beak hangs down a fleshy substance of an orange colour, and curiously shaped, like an ornamental tassel; the eyes are of a very light pearl colour; around the neck, towards the breast, it has a collar of a dark silver gray, into which the bird draws its head and neck; and most likely it serves him to secure those parts from the stings of venomous snakes, which it is said they feed upon.

The smaller vulture of Surinam has already been described in the seventeenth Letter.

It has been observed by those colonists who hunt much in the woods, that most of the birds of prey at Surinam live chiefly on snakes, serpents, and other reptiles, while the harmless birds in the thick foliaged forests of Guiana frequently make their escape; and by this means the birds of prey are rather useful to the colony, or at least less destructive.

However, there is one species of hawk that often approaches the habitations, and tries to rob the poultry yard; but fortunately it announces itself with a strong cry: it is difficult to be shot, as its feathers, particularly on the breast, are very thick, where the small grain shot cannot readily penetrate: the bird is of the size of an European hawk, its colour a dark brown, and its breast of a dusky white.

The White Falcon is about the size of that of Europe, its colour snow white, the wings and the tail, which last is shaped like that of a swallow, are black, as also the beak and the legs, and likewise the eyes. Two or three pair are sometimes seen flying together; they live chiefly upon snakes, and it is curious to see them flying with their prey, whilst the reptile winds itself round their necks.

Another species of Falcon is of a brown colour; the under part is spotted with yellow, of which colour are the beak and legs; it is said that this bird possesses the power of extending the skin of its head to a considerable size, which perhaps may serve as a defence against the poison of the venomous snakes, while the rest of the body is secured by thick feathers.

The Spotted Falcon is about the size of a pigeon, and has the shape of an European falcon: its head, beak, wings, and tail are of a black colour, the breast of a deep orange; but the whole bird is speckled over with small white spots; the legs are yellow: it is a nocturnal bird, and is said to prey upon bats, for which reason it ought not to be shot, the more so, as this species of falcon is reckoned to be scarce in the colony.

The Orocoocoo, or Screech Owl of Surinam, is about the size of a pigeon; its general colour is brown, except the under part, which is a dusky white, intermixed with yellow spots. Many inhabitants of the colony have a superstitious fear of the nocturnal cry of this bird, which sounds like the above mentioned name, given to it by the Indians.

Of birds living on fruits, the parrots are the most numerous at Surinam; their generic distinctions are, that the upper mandible of their crooked

bill is moveable, their tongue flat and blunt, and they have two toes before, and an equal number behind. The Macaw is the largest amongst them.

The Blue Macaw is of the size of a raven ; the principal colour is a light blue, with a cast of sea-green on the head ; the cheeks, which are almost bare, are of a white colour, and diversified with black small feathers, forming differently shaped bars ; the breast and the under part of the body are of a light yellow colour ; the tail, which consists of a few, but very long feathers, of a sea-green.

The Red Macaw is rather less in size than the former, but the shape is exactly the same ; its cheeks are also white, and diversified with some red feathers ; the head, neck, and breast are of a scarlet, with a crimson hue, and sometimes spotted with yellow ; its wings are red, and near the top is a bar of green and yellow, and the rest are blue till the extremity, and the tail is also blue ; the beak and the legs of a dusky white.

A smaller species of Macaw is of a dark green, and white cheeks, with black bars ; the beak and legs of a horn colour ; this last is but seldom brought by the Indians to Paramaribo.

The Macaws in general seem not to associate in numbers like the parrots ; they fly in single pairs, and sometimes in two pairs, which most likely are then young ones ; they fly but slow, and their splendid colour, with their long trained tail, make a fine appearance in the air ; and even their cry from the height which they fly at, sounds solemn.

The most common parrot species at Surinam are those of a green colour, and the forehead marked with blue and yellow, and some red feathers on the shoulder of the wings ; the beak and the legs of a horn colour, and the eyes of a reddish brown. The size of the bird is about that of a pouter pigeon : they learn to talk very well, particularly when they are taken quite young from the nest ; they are then quite destitute of feathers, and with their large crooked beak, make a very grotesque appearance. This species of parrots is often seen flying in large flocks, but each pair keeping distinctly together ; they make a very shrieking noise in the air, and particularly when some amongst them have been shot.

The Black-headed Parrot is of the size of a pigeon, its neck is yellow,

its breast white, the wings and tail green, the beak and claws are of a horn colour, and from the curious distribution of the colours, it is sometimes called the dressed parrot.

The Blue-headed Parrot is of the size of the former; the body green, the upper part of the head blue, as also a part of the wings, on the shoulder of which are some red feathers.

The Cockatoo has already been described in the seventeenth Letter.

The Blue Parrot is very distinct from most of the other species of parrots, by not having a single green feather. This bird is of the size of a turtle-dove, of a dark blue colour, the breast lilac; round the bill is a red ring, and round the eyes, which are black, is a white ring. This parrot does not easily learn to talk, but is kept at Paramaribo for its rarity.

Of the paroquets, which differ from the parrot by being much smaller in size, the most common species is about the size of a thrush, its colour is green, the cheeks and breast of an orange colour, the eyes black, the bill and feet of an ash colour, the tail short. These never learn to talk.

The Variegated Paroquet is about the size of a turtle dove; the head, body, and tail are of a bright yellow, with red and green spots; the wings are green, but its beautiful colours do not compensate for its penetrating screaming voice. By its large head and very long tail, it approaches to the Macaw species.

The Brown-headed Paroquet is about the size of a thrush, of a dark green colour, the head of a dark brown, the breast of the same; but each feather is edged with yellow, which gives it a rich scaly appearance; they have on the side of the chin a small white spot; the tail is long, and of a green colour. This is an elegant little bird, and becomes very tame.

The Green Paroquet is of the size of a starling, of a slender shape; its bill strong, and less bent than any other of the parrot or paroquet species; the colour of a lively green, a crimson red ring round the beak; the eyes are black, with a white ring round them. This bird learns well to talk and whistle, and shews a great deal of sagacity.

Of the Grass Paroquets there are two kinds: the one about the size of a chaffinch, of a light green colour with yellow feathers on the shoulder of the wings, black eyes, and the beak and legs white. The other kind is still smaller; and this is already described in the seventeenth Letter.

The Toucan lives also on fruits. This singular bird is of the size of a magpye, and much of its shape; but its beak is about six inches long, and in equal proportion thick, arched, but very light; its upper mandible is edged like a saw; the tongue is long, and fringed like a feather. This bird is black above, and under the throat and breast white, edged with some red feathers, in the form of a crest reversed, mixed with some yellow feathers; but there are variations amongst them, both in size and colour. The toucan carries its tail like the magpye, and its feet are shaped like those of a parrot; it is a very lively bird, and easily tamed; the cry is heard at a distance in the woods, and sounds like the barking of a small lap-dog.

The Banana bird is of the size of the thrush: its body is of a yellow colour, and some of them are reddish; the wings and tail are black; the beak and legs of a horn colour. This bird builds its nest in a most singular manner, in a conic form, nearly a yard in height; they are chiefly built of a long strong species of grass, and about half way down is left a small opening for the entrance of the bird; the bottom of the nest is perfectly globular; the upper and most narrow part of this nest is fastened to the extremity of a branch, and in general is built over water, to secure themselves and their brood against the attacks of their formidable enemies. This bird is also called the Mocking bird, but ought to be distinguished from the true mocking bird, which is mentioned in the sixteenth Letter. Of the banana bird it may be said, that his choice of sounds is not pleasant to the ear, as he only imitates in general the cries of wild beasts and rapacious birds; but this bird, which shews so much sagacity in building its nest, may perhaps make use of this voice to frighten those small animals away, which, by their great agility, might slide down to their nest: however, this seems not always to succeed; a gentleman who is much accustomed to shooting, at Surinam, told me, that he had once seen, very early in the morning, two little black sanguinkees coming out of one of those nests, where, very likely, they had made their abode during the night. These banana birds live together, and the tree which suits them is often covered with their nests, and they make, before they go to rest, a great deal of shrieking. They are very fond of the ripe banana, which gives rise to their name.

The Rice bird is of the size of a thrush, and is of a black colour, with a purple cast; the beak, which is shaped like that of a thrush, is black, and likewise the legs. This bird has some fine notes, and might perhaps be able to learn tunes like the bullfinch.

With respect to the singing birds at Surinam, they are already mentioned in the seventeenth Letter.

The Sun Fowl is about the size and shape of a woodcock, and of a slender shape, with a long pointed beak, and long legs; its colour is brown, shaded with black and yellow, but the long feathers on the wings resemble the rays of the sun, and the bird appears to be very proud of shewing them, as it frequently extends its wings like a turkey, or as the peacock does its tail. The sun fowl lives upon insects, and becomes very tame.

The Quese-quedee bird, called so from its cry, is about the size of a blackbird, and of a brownish colour except the under part, which is yellow; the feathers on the top of the head are brown and yellow, and those the bird can raise into a slight crest; the bill is straight and strong, and it is said that this bird preys on other small birds, like the European butcher-bird.

The bird called at Surinam the Bullfinch, is larger in size than those in Europe, but its beak is not of such a thick form: the bird is black, except the breast, which is of a bright red.

The Rock-cock is of the size of a pigeon; the bill is in the form of a pullet, its beak and legs white; the bird is of a yellow colour; the head is ornamented with a comb of feathers of the same colour. Two of these birds are in Dr. Debez's collection.

I have also seen stuffed, at Surinam, a King-fisher, of a larger size than those of Europe, but much the same colour.

Of Wood-peckers there are several species at Surinam: one is of a brown colour speckled with yellow; the head is crested with a small and pointed hoop of yellow feathers, of which colour are those on the breast; the head and wings are of a shining red.

The Black-winged Wood-creeper is nearly as small as an European titmouse; the general colour is a most brilliant ultramarine blue, except the throat, wings, and the points of the feathers in the tail, as also a small

spot on both sides of the beak, which are all of a jet black; the inside of the wings are of a silver gray, the bill, which is about an inch and half long, is arched, and of a black colour; the legs, which are orange, have three toes before, and one behind, ending in small crooked nails.

Humming birds or Nectar Suckers, called by the Indians Colibri, are in great variety at Surinam. The best collections of these birds in a dried state, which are too small to be stuffed, are in the possession of Mr. Cameron, the British post-master, and Mr. Link.

The humming-birds are distinguished by a long and slender bill, the upper mandible being a sheath to the lower; the tongue is like a fine thread, forked and tubulous, with which they suck the nectar juice from the flowers; their wings are very long, with which they make the humming noise whilst hovering round the flowers, in which manner they suck their nourishment without resting, and this has given them the name of humming-birds.

The smallest species have an apparent straight bill, though upon minute observation, it is found to be slightly bent; its body is no more than an inch and half from the extremity of the head to the beginning of the tail; the beak is three quarters of an inch long, the wings, when at rest, are about an inch and half, the tail is three quarters of an inch long, the legs are very short, having three toes before, and one behind, of a black colour, as is also the beak. This humming-bird is of a shining green colour with a golden cast; the wings are of a darkish brown, the eyes black and bright, the lower part of the breast white,

The Peacock-Colibri is of the colour of a shining green, with a bronze cast; the neck is in particular brilliant, of a lighter shining green; its tail, which is of a bright purple colour, having on both sides some gold coloured feathers, is sometimes spread by the little bird in the manner of a peacock, when it rests upon trees; this happens, however, but seldom; for more frequently it uses its wings, which are very long, and are of a dark brownish colour; the bill, which is arched, and of a blackish colour, measures an inch; the head is half an inch long, the neck one quarter, and the body an inch; the tail full an inch and a half.

The brass coloured humming bird is about the same size as the preceding; it has a green stripe under its throat, inclosed with a white border,

and a light brown attached to it; the lower part of the breast is black, and the rest of the bird of a brass colour; the beak and legs are of a blackish cast.

The Crested Colibri has the feathers on the neck, back, and upper part of the wings of a fine light green colour; the small tufted crest and the breast are crimson, and the long feathers on the wings and tail have a mixed shining cast of green, crimson, and purple.

The body of the Long-tailed Colibri is green, the head black, and the tail of a brownish colour.

The Argus Colibri has been already described in the 16th Letter.

The largest species of the humming bird is of a dark green shining colour, the wings and tail black, and also the beak and legs.

The humming birds pass so rapidly through the air, that the eye can scarcely follow them: they sometimes fight among themselves in the air, and run their little bills like lances against one another, and it is said that sometimes both parties drop down severely wounded; their nests, which are not larger than the shell of a walnut, is in general built between the forks of thin branches of trees; the materials consist of dry leaves, and the nest is lined with silk cotton; their eggs, of which two are always found in their nest, are the size of peas, white, and very transparent. The male and female assist alternately each other in the work of sitting, whilst they are breeding, which it is said lasts the space of twelve days. Though the smallest species of them very likely live entirely upon the sweet juice of flowers, yet I have had an opportunity of seeing the large humming bird, which is almost entirely green, hovering over a brook among a swarm of gnats, and seemingly catching them.

The Swallows of Surinam, which build their nests in the houses at Paramaribo, are very like those of the European house swallows, except that they are of a somewhat larger size, and under the beak, the white colour assumes a tint of an ash gray. They never quit the country.

The Goat-sucker is exactly in form and colour like the European bird of that species, but nearly as large as a magpie. Dr. Debez possesses one in his collection.

There are many different species of little birds at Surinam, which live upon insects, but they begin to decrease considerably in number in the vicinity of Paramaribo, for not only on Sundays many of the inhabitants go out shooting

all sorts of birds, without making any distinction in their choice, but most of the boys make it their principal amusement to shoot the little birds with bows and arrows, though they may have in some future time to repent of this sort of sport. In the neighbourhood of one of the principal towns in Germany, the caterpillars increased in later years to such a number, as to commit great destruction, not only amongst all sorts of fruits, but even to the trees themselves, a premium was therefore offered to any one who could discover the cause of this extraordinary multiplication of these creatures, and the best method to destroy them. The most plausible reason assigned for the increase of these insects, was, that the bird catchers were so numerous, and caught so many of those birds which live upon insects, that the caterpillars, having lost their natural enemies, multiplied in abundance. But the consequences will be still more severely felt in a climate like that of Surinam, which is so favourable to the increase of insects.

The Jabiru, or Crane, of Guiana, resembles much the European stork, but is of a larger size ; this bird is of a white colour, except the head and the prime feathers of the wings and the tail, which are black ; the legs, neck, and beak are very long, and the latter is a little hooked at the end, and of a gray colour.

The Grey Crane of Surinam resembles much the European one, but is not so large ; it is of a blueish gray, has a small crest on the back part of the head, and some long feathers along the neck of a light gray colour ; the long beak and legs are of a grayish green colour.

There is another crane of a smaller size and of a white colour ; the beak and legs are yellow.

The Flamingo of Surinam is about half the size of an European stork, which it resembles in shape, but the bill is arched ; the bird when young is white, then becomes a gray colour, and when full grown changes into a most lively scarlet. They are frequently kept amongst the poultry, and live upon small fishes.

The Water Hen of Surinam is of the size of an European spur-winged water hen, which it much resembles, but its colour is of a deep cinnamon, and the prime feathers of the wings are of a very light green ; it has on the forehead a small comb crossing the beak of a red colour ; its beak near

two inches in length, is of a yellowish green, and of the same colour are its legs, ending in three long toes before and one behind, by which the bird is easily supported on marshy grounds. They live in pairs, and subsist upon water insects.

The Shoveller or Spoon-bill frequents the sea-coast of Guiana, and is a shy bird; is said to be of the size of a goose, but stands higher on its legs; when young, the colour is first white, but when full grown changes into a reddish colour; the bill is narrow near to the head, and increases towards the end, where it runs into an oval point like the form of a spoon, which has occasioned the name of this bird; that part of the toes which is nearest the foot, is webbed, and the bird lives chiefly on fishes.

Of Wild Ducks, the most frequent species at Surinam is the Annakee, which is not so large as the European common duck, but stands higher on its legs; it is of a light brown colour with variegated shades; the bill and legs are of a pale orange. They are frequently kept amongst the poultry, and are of an excellent taste.

Another species of ducks, as large as a Muscovian duck, is of a black colour; the beak and legs of a grayish black; on the head is a crest of curled feathers which runs from the beak to the neck.

The Darter is an extraordinary fine bird, about the size of a Muscovian duck, to which it bears some resemblance in the formation of its body, except being much more slender; the neck is long, and the head small, narrow, and oblong, ending in a pointed beak, which gives it the resemblance of a serpent; its feet likewise differ from those of the duck, in having the fourth toe also joined with a web. This bird is of a gray colour, shaded with black and white; the bill is about three inches long. I have seen two young ones at a Dutch officer's house, which did not seem to be shy; but when I was at Mr. Busch's to see his collection of birds, which I have mentioned in the sixteenth Letter, he said, that several Indians, to whom he shewed his collection, when they saw the Darter, exclaimed, they hated this bird very much, because when they were bathing in rivers, these birds, either by pursuing fishes under water, or perhaps taking them for prey, will dart at them, and give them very severe wounds. But of this extraordinary account of the Indians, I did not get any satisfactory confirmation.

## OF THE REPTILES AND AMPHIBIOUS ANIMALS.

THE Cayman, or Crocodile, which I saw at Surinam, did not exceed five feet in length ; but it is said that some are found from ten to fifteen feet long. Some of the inhabitants in the colony are of an opinion that the cayman and crocodile are a different species, whilst others pretend that it is only a mistake in the different state of age of the same animal. The cayman has a hard skin, the back and the upper edge of the tail is indented, and of a gray brown colour ; the head is very strongly formed, with a long snout ; the jaws are extremely wide, and beset with a double row of sharp teeth ; over each eye is a hard scaly protuberance as large as a man's fist ; its four feet are guarded with very strong claws ; its thick skin is said not to be penetrable even by a musket ball, except near the head and under the belly ; its flesh is eaten by the Indians, though it is of a musky smell. The female cayman deposits its eggs in the sand, and leaves them to be hatched by the sun. These eggs are said to be of the size of a turkey's eggs, and to be laid together in great numbers ; but happily many animals prey on them, in particular the vulture ; and many of the young brood are likewise devoured by the larger ones of their own species. When they first come from the eggs I have seen them kept in a large glass globe ; they were not then five inches long ; but their large jaws, in proportion to the rest of the body, gave me a sufficient indication of their future appearance. However, the cayman are at Surinam not so dangerous as in many other countries : they do not attack the human species when on shore ; and even when bathing, it is said, it requires only to keep in constant motion, and the cayman will then not venture to attack a man.

The Eguanna is about three feet long from the head to the extremity of the tail ; it is covered with a soft skin ; the back and legs are of a blue green ; the sides and belly are of a paler green, as also the bag or loose skin which hangs under the throat ; the eyes are black ; and the claws, of which there are five on each foot, are sharp pointed, and of a brown colour ; along the head and back runs a ridge of fringed skin. The bite of this lizard

is esteemed painful, but of no bad consequence, and indeed its teeth are very small. A fuller account of this species is given in the sixteenth Letter.

The Varied-banded or annulated Lizard is a very pretty creature ; it is not above four inches and a half in length from the tip of the nose to the end of the tail ; the head is flat and pointed ; the feet terminate each in five small sharp claws ; the tail is of a pyramidical form, about an inch and a half long, and covered with fine bristles. The whole animal is coloured with black and light blue regular stripes, crossing the body, each about a quarter of an inch wide.

The Brown Lizard, vulgarly called the Devil in the Wood, is about a foot and a half long from the tip of the nose to the end of the tail ; it has no scales, is of a dark brown colour, intermixed with black spots ; the head is large, and the legs are armed with strong claws. This animal runs very fast on trees, and is said to feed on birds and other small animals, and to bite very severely.

The most common lizard at Surinam is about five inches long, and the tail as much ; the head, fore part of the body, the breast, and the fore legs, are of a light green colour, while the other part of the body, the hind legs, and tail, are of a light brown ; the head is large, and the tongue forked. It is very fond of eating ants, and will pursue them even into the houses.

With respect to the frogs and toads, there is not such a number of them at Paramaribo as in many other tropical places, and this is principally to be ascribed to the situation of the town, which is built on a fine gravel, and the rain being thereby soon sucked up, it prevents all stagnation. But on some plantations the cries of the toads in the rainy season are very unpleasant.

One of the species of frogs here is called the Jumper : it is about the size of an European frog, but much more slender, and with very long hind legs ; its colour is yellow, shaded with red and ash colour. This frog is fond of climbing and jumping, and is very active in pursuing the insects sometimes to the second story of the houses ; it is a very harmless creature, though sometimes an unwelcome visitor. I had once one of them jump unexpectedly upon my head.

Another species is a very small green frog, much like those found in the hedges and under trees in Europe; but this has in proportion a larger head, and the under part of the hind legs are yellow spotted with red.

The Pipa is about the size of a young rabbit about a fortnight old; the hind feet are webbed, and the toes longer than those before, by which it can leap and swim like a frog, and therefore differs in that respect from the other species of toads; but its skin is very uneven, dark brown, and marked with black spots. The pipa looks very heavy, and the inhabitants suppose it to be venomous, and therefore treat it sometimes most cruelly, though it merits a better fate, for the particular care which it takes of its young brood, as it has been observed that the female deposits the eggs on the back of the male, where they are hatched.

The Jackee, or the Frog with a tail, has been already mentioned in the sixteenth Letter; and as I have also described in that letter some of the most remarkable snakes and serpents, I will only add here a few more, and begin with those, which, it is said, are the most venomous species at Surinam, and therefore most necessary to be known to new-comers.

The Labarra serpent, which the Indians declare to be the most dangerous, when full grown, is said to be three feet and half long, and four inches in circumference at the middle, where it is largest; the neck and tail being slender, the head broad and flat, the mouth wide, armed in the upper jaws with two sharp slender tubular fangs. The colour of the scales of this reptile is a light brown, intermixed with bars of a dark brown: it is said they conceal themselves sometimes in fences, under boards and other timber, and the person who has the misfortune to be bit by them expires in a few moments. There is a smaller sort of these serpents, about fourteen inches long, and the thickness of the ramrod of a gun; the scales of a dark shining brown, intermixed with white spots; but the shape of this snake is much like that of the large labarra, and perhaps the difference lies in the sex, or in the difference of age; its poison is equally dangerous as the former.

The Aboruea is the Indian name of a serpent near three feet in length, and about two inches in circumference; the head is covered with oblong

scales of a whitish cast, edged with black ; on the back are red, white, and black spots alternately ; the black and white scales are spotted with red on the edges : its bite is said to be fatal, but happily its motion is very slow.

The Rattle-Snake is said to be sometimes found at Surinam of the length of seven or eight feet, and very thick about the middle, tapering towards the neck and tail ; the head large, flat, and broad, with a blunt snout, wide nostrils, and over the eyes two knobs ; at the extremity of the tail are several thin horny hollow rings joined together in a pyramidical form, and when the reptile becomes irritated it shakes them, which occasions a sound like a rattle, by which the passenger may be put on his guard, particularly as the rattle-snake is slow in its motion. It is said to perform its attacks in the following manner : it coils itself up with its head erect, and waving its tail constantly, and then the reptile darts upon its prey, but not at a greater distance than its whole length. It is supposed that every year an additional ring grows to the rattle, by which also the age of the serpent may be ascertained. I possess a rattle-snake with thirteen rings, but I have not heard that one was ever taken with a single ring. therefore, I suppose that they have in their first state, a rattle with several rings, to which afterwards another ring may be yearly added. This serpent's skin is covered with scales, which are more rough and rigid on the back than any other part. The colour of this reptile is a dusky orange, mixed with dark brown and black spots, of which colour is the head ; the belly is of an ash colour, and the side has transverse scales : the bite of this serpent is esteemed most dangerous ; their hooked teeth are of considerable length, and the tongue forked, and of a black colour.

The Scarlet-coloured Serpent when full grown, is said to be near five feet in length, and about two inches in circumference. The upper part of this reptile is of a scarlet colour, the belly of a dull red : the head is flat and white, and the tail slender ; it is said that this serpent is found coiled upon the trees, and waiting for its prey to dart upon it ; but its vivid lively colour frequently advertises them of their danger ; its bite is accounted fatal. I have seen one preserved in spirits, of which the colour was entirely faded.

The Caruna Serpent is, when full grown, about two feet and a half long,

and of a slender shape ; the neck is small, but the head is wide and flat ; the belly is of a dusky white, the sides of a brown colour, the back covered with black spots, diminishing in size from end to end, and in proportion to the body as it tapers. This serpent is remarkable for coming into the houses in the rainy season, and its bite is esteemed fatal ; the only one I had an opportunity of seeing, made its escape before it could be secured.

The Blunt-tailed Serpent, when full grown, is said to be near three feet in length, of a bulky shape, the head and neck white and flat, and the tail is not pointed like most of the other serpent species, but differs little from them in the size of the body: the colour of this reptile is a dark brown covered with black spots, the belly of a dull yellow brown. It is said that this serpent never stirs from any attack made on it, but assumes a very frightful appearance by erecting the loose scales which are round the head and neck, and its bite is esteemed fatal.

The Fire Snake, called so from its being much attracted by fire at night, is said to grow to the size of about four feet in length, and above two inches and half in circumference ; the head is flat and the mouth wide, with small teeth, and in the upper jaws are two venomous fangs. This serpent is of a dark orange colour on the back, with black and white spots disposed in pairs from head to tail. They are accounted very venomous, and said to be most dangerous to the Indians when they are on their excursions in the woods, and sleeping in hammocks in the open air, where they keep fires burning all night, near which this reptile likes to approach. But when the Indians are in those places where they suppose this species of serpents are, they make a large fire at some distance from their resting place, for the purpose of decoying the reptile thither. In such cases when a person is bit by one of these species of venomous serpents, the dangerous effect of which is felt in a few minutes, it cannot be expected that any medicine taken by the alimentary passage can become an antidote, and even the applying of cataplasms is an uncertain remedy. The Indians, when bit by these serpents, immediately cut out the wounded part, and by this means save their lives. For my part I am resolved, if such an accident should ever happen to me, to bind very strong the surrounding parts, and then suck the wound, or use a cupping-glass to extract the poison with the blood, and after this apply caustic to it, which I am accustomed to carry

with me in the excursions to the forests. But the best security from the danger of being exposed to those reptiles, as I have already had the opportunity to mention in the fifth Letter, is to be accompanied by a terrier.

The Comodee is an amphibious snake, and it is said will grow to the size of fourteen feet in length, and seventeen inches in circumference; the colour is brown on the side, diversified with dark brown and yellow spots; the head is broad and flat, and the tail long and slender; their bite is not esteemed venomous; but they frequent the creeks and ponds, and destroy a number of ducks and other water fowl.

The Lapis Lazuli Snake is about eighteen inches long, and about two inches in circumference, with a small pointed head; it is covered with very fine scales of a light blue colour, shaded with dark blue and white, which gives it the appearance of the colour of lapis lazuli; the under part is white. This reptile is also called by some inhabitants, the Blue Dipsas Snake, from its bite, as it is supposed, occasioning extreme thirst in those who are bit by it; but one of those species which I keep preserved has no venomous fangs; and all its teeth are so small, that it can hardly be conceived how this snake has the power of inflicting a wound.

The last of the snake species which I shall mention here, is of a green colour, near a foot and a half long, and not quite an inch in circumference; the head is very small and pointed, the body slender, and the tail pointed; the body covered with very small scales: it is a harmless animal, and it is said that the ladies in some parts of South America carry it frequently in their bosoms, for the sake of its refreshing coolness, though the ladies at Surinam have not imitated them in this article of luxury.

Of Land Turtles there are in particular two species at Surinam.

The common Turtle is about eighteen or nineteen inches in length; the upper shell of an oval form; it is highly convexed and elevated, hexangular, of a yellowish brown colour, and of a very hard texture; the under shell is slightly concave, and of a lighter colour; the head, feet, and tail resemble those of an European tortoise, and its walk is also very slow. Several of them are often kept fenced in together, and fed with ripe banana, or other fruit and vegetables, till they are occasionally prepared for a meal; but they do not taste so good as the Sea turtle.

Another species of land turtle is called the Arracaca by the Indians ; it is of a smaller size ; its upper shell is flat, of a dark blackish colour, and seems capable of a fine polish ; the animal is of a black colour with some light red spots. It is said the taste is not good.

There are likewise in the colony three different species of Land Crabs ; the first is small and of a gray colour ; the next is large and white ; and the largest of all is of a purple colour ; but as they do not differ in their shape from those in Europe, I shall only mention, that being so plentiful here, they serve as one of the principal articles of food to the Indians and negroes.

### OF THE FISHES OF SURINAM.

THE salt water fish that are caught on the coast of Guiana, are less delicate than those which are taken on the coasts of Europe, as the muddy water which the large rivers carry into the sea extend more than thirty miles.

A maritime animal which frequents the coast and the rivers, is the Manati, or Sea Cow. This animal grows to the size of about fifteen feet in length, and is of a bulky circumference ; the head resembles that of a hog, but the muzzle is shorter ; the nostrils are large, its eyes are very small ; instead of ears, it has auditory holes ; the mouth is large, and the gums are very hard, but without teeth ; the tongue is short, as is also its neck ; the body is covered with a dark gray very tough skin ; on the breast are two paws like those of a sea turtle, with which the manati is said to support itself when feeding on marine plants, and holds likewise their young brood to their udder, which is placed on the chest.

Next to the manati is the Gray Munik, growing to the size of near three feet in length ; it is much like the salmon in its shape, but has larger scales and is thicker in the body ; its flesh is white and delicate ; there are plenty of them in the upper part of the large rivers in the colony.

The Yellow-back is often brought to market at Paramaribo, and attracts the attention of new comers, as this fish is of a saffron colour on the upper part, but the under is white ; it grows sometimes near three feet long, and

has a large head with two very long whiskers ; the body is small in proportion, without scales, and the taste but indifferent.

The Warapper is above a foot long, and a fish of good taste. In the rainy season it leaves its swampy retreats with the inundation, and gets into the flooded parts of the forest, where it becomes very fat, and is easily caught amongst the trees, when the water begins to subside.

The Old Wife is of the size of a perch, to which it bears a resemblance, and is of an excellent taste.

The Lumpe is also much esteemed for its flavour. This fish is about a foot and half long, has a very large head, and its body is marked with longitudinal black stripes. There are a number of wholesome fishes in the rivers of the colony, but they have nothing remarkable in their form, and their methods of living are entirely unknown.

The Peri, however, deserves particular attention ; it grows to the size of about two feet, and is of a flattish shape, with a large head, wide mouth below the head, and very sharp teeth : it has a fin on each side of the belly, a single fin on the back, and another at the end of the tail : the fish is covered with shining thin scales of a bluish colour ; it lives in fresh water, is very rapacious, and its jaws are so strong that it will snap off the feet of the duck and other water fowls as they are swimming ; it is even said that persons who have been bathing in the rivers, without knowing the nature of this fish, have had their toes, fingers, &c. bit off by them ; but the Indians do not dread the peri, for they keep themselves in constant motion whilst bathing, by which they frighten the fish off, and keep it at a distance.

The Que-quee is about ten inches long, with a large round-shaped head ; the whole fish is covered with hard scales of moveable rings, sliding one over the other, like those in the tail of a craw-fish ; the colour is of a brownish grey, and the fish is said to taste well.

The fish called the Four-eyed Fish, is near a foot long, covered with a brown skin ; the head has some resemblance to that of a frog. This fish is found in creeks, and thought by many to have really four eyes ; but when minutely observed, it is clear that it has only two eyes, but under each is an addition like a part of an eye, which most likely serves this animal as a kind of reflecting mirror, by which it can observe what passes under

the water, and thus avoid any unexpected attack, as it generally swims with the head considerably elevated out of the water. It is a very lively fish, and pursues with great vivacity those insects that swim on the surface.

A description of the electrical tropical eel has been already given in the sixteenth Letter.

### OF THE INSECTS.

To give a full description of the many species of insects that are to be found at Surinam, would require many volumes; I shall here only mention those which merit a particular attention, from the splendour of their colour, or from their being either useful or hurtful to the human species, and consequently ought to be particularly known.

Amongst the great number of beautiful butterflies the following are generally admired.

The Mirror-bearer. The length of the wings from point to point is near four inches and a half; they are elegantly indented, and of a bright cinnamon colour, diversified with darker colours: in the middle of each wing is a large round spot, very transparent, inclosed with a double border; the interior of a white, and the exterior of a black colour. The caterpillar of this butterfly is said to be four inches long, an inch in circumference, and of a gray yellowish colour.

The Peacock-spotted Butterfly is, in the length of its wings from point to point, about three inches and a half: the inside of the wings is a bright shining azure, bordered with a dark silver gray; the outside is of a light olive colour, adorned with round spots like those of a peacock's tail, of a light purple colour, with a yellow spot in the middle, and the lower part of the wings bordered with a light rosy stripe, and trimmed with white. All these colours are arranged with so much apparent art, and are so finely shaded, that it is impossible for the best painter to manage them better, nor distribute them with a greater taste. This species of butterfly frequents the creeks and rivulets; the caterpillar of them is said to be about three inches and a half long, half an inch thick, and of a pale yellow colour.

The Black Butterfly is in the extension of the wings near six inches ; the colour is black, intermixed with different shaped red spots. This butterfly when seen flying towards evening is frequently taken for a bat, from its size and dark colour ; and they frequent mostly the thickest part of the forest.

The Swallow-tailed Green Butterfly has its wings about three inches and half from one tip to the other ; its colour is a most beautiful light green, intermixed with gold, formed like so many scales, and crossed with black lines, in the same manner as the Zebra. The two long points of the lower wings, which are formed like a tail, are of a black colour, bordered with white. The flight of this butterfly is very swift, and often very high. It is said they have been sometimes seen extending their excursion as far at sea as where the coast of Guiana could be discovered no longer.

The Bees are very abundant at Surinam ; but they are only about half the size of an European bee, and their colour is black, but their sting is long, and it is said they use it very severely to those who endeavour to rob them of their magazines. They probably build their nests with the peeling of leaves : their habitation is in general of an oval form, of a whitish gray colour, and its size according to the number of their society ; the honey is more fluid than the European, and of a dark brown colour : its sweetness leaves a bitter taste behind ; the wax is also dark brown, and softer than that of the European bee.

The Marabonso wasp is about an inch and a half long, but of a slender shape ; they are of a purple colour, and the legs of a yellowish colour. Their sting is very long, but they will not hurt any one except they are attacked : they like to build their nests on the roofs of houses.

Next to the Bees, the Ants merit admiration for their industry. The largest species in the colony is about three quarters of an inch in length, and of a black colour : they build their nests deep in the earth, but fetch their materials for it from the higher part of the trees ; they cut the leaves in a circular form, near three quarters of an inch in diameter, and carry them in a horizontal direction. It is very curious to see them march in this way in a long line, from the higher part of the trees down to their nests ; but not satisfied with the real sagacity and industry of these insects, many persons

have invented a number of fabulous stories concerning them. Their bite is painful, but they do not attack without being previously disturbed.

The White Ant is nearly of the same size as the Black Ant, but their nest is built on the upper part of the trees ; it is made of incrustated earth, of a grayish colour, and in form it has often the appearance of a sloth sleeping on a tree : they build them sometimes several feet in circumference, in which they make a number of covered alleys, and the ants will sometimes make covered passages from their nests to the houses near them ; and though they do not bite, yet they are very destructive to many parts of the houses, where the wood is not perfectly sound, and also to the furniture ; but how to prevent this best, I have already mentioned in the sixteenth Letter.

The Fire Ants, called so from the pain their bite occasions, which is similar to that occasioned by touching a nettle. This species is not bigger than the common European ant, but the head is almost as large as the body ; and when they bite they seize the skin with such fury in their nippers, that they will rather suffer the head to be parted from the body, than let go their hold. In the dry season, sometimes a party of them try to make their nests in the neighbourhood of dwelling houses ; but pouring boiling water in the opening in the ground from whence they appear, is the speediest method of destroying them.

These different species of ants, when full grown, have got wings like those in Europe, by which they have sometimes been taken for a distinct sort.

The Walking Leaf, or as it is likewise called by the Dutch inhabitants, the Spanish Young Vrow, is of an extraordinary appearance ; it is about two inches and a half long, but very slender ; the body is oval, to which is annexed a neck, in length equal to the whole body ; the head is small, and almost of a triangular form : the mouth is shaped like that of the locust, or the grass-hopper ; close to its head are a pair of very long legs, each armed with a strong hooked nail, and four other legs are attached to the belly : the insect is of a green colour ; it has four wings, of which the under two are of a light green, and almost transparent. This insect keeps itself often in an erect posture, and stands upon its hind legs, stretching out his fore ones ; but the jointed parts or elbows are kept close to the body ; and spreading out their wings in this posture, they have been com-

pared to a lady dressed in a hoop petticoat, and therefore the name of Spanish young vrow (or the Spanish lady) has been given to it. But it is more properly called the walking leaf, as it bears a striking resemblance to leaves. I have kept several of them in a cage: they live upon insects, which they seize with their fore paws, and these serve them also for their defence; and if they happen to loose them by accident, the mutilated individual is seized by another of its species, and devoured.

Among the Scarabæus tribe, the Rhinoceros Beetle is the largest: its full length is four inches; its body, which is oval, measures two inches and a half, to which is attached two pair of legs, and another pair is annexed to the corslet; its head ends in a curled upward-pointed proboscis, above an inch long, with which it can easily strip the bark off the trees, which is its chief nourishment.

I have seen a beautiful beetle of green and gold, intermixed exactly like the diamond beetle brought from the Brazils; but this at Surinam was no more than half an inch in length.

There are three different species of insects at Surinam, which are called fire flies.

The Lantern Carrier is near three inches long; the body is green, has six legs, and in its shape it has some resemblance to the moth; its wings, which are four, are transparent, of a greenish colour; on each of the under wings is a large spot, in shape not unlike those in the feathers of the peacock's tail, and of a purple and yellow colour; from the head rises a large proboscis of an oval form, but tapering most towards the head, and making one third of the whole size of the insect, which is vulgarly called the lantern, emitting a bright light, which is said to be so powerful, that on putting two of them in a glass, a common print may easily be read by it. Several other species of insects have been mistaken for the Lantern Bearer; but it seems the real species is principally found in the mountainous part of Guiana, and only appear there in the rainy season. I have not been able to procure a living one.

Another luminous insect belongs to the beetle species, and is about an inch and a half long, of a dark brown colour: under the head near the wings, on each side, is a round spot about the size of a grain of mustard seed, which emits a greenish light.

The third sort of Fire-fly is about half an inch long, and the luminous spots are under each wing; wherefore the light can only be observed whilst the insect is flying; and as there are plenty of them in the rainy season, they appear sometimes as so many intermitting sparks from fire works.

Of the Gnat tribe are several species in the colony, which only seem to differ in their size and shade of gray or black colour, but are all comprehended under the general name of Mosquitoes, and of which I have spoken in the sixteenth Letter.

The Cackerlackke or Blata, in the West Indies called Cock-roach, is about an inch and a half long, of an oval and flat form, shaped like the black beetle; but its body is of a soft texture, and of a dark brown colour, to which six legs are attached; its head is almost triangular; it sheds its skin once a year, and then gets wings, which I suppose to be the male insect; but I felt no inclination to observe so disgusting an object minutely. The eggs of the cock-roach are of a dark brown colour, of an oval form, and about a quarter of an inch in length: as soon as the young brood come out, they try to get into baskets, trunks, &c. through the small crevices or key-holes; and to prevent this the best method is to put the boxes on four strong glass bottles. They are of as noxious a smell as the bug, and, like it, appear only in the night, though they are not of so blood-thirsty a nature; but they destroy and eat all kinds of silk and woollen cloth.

Of the Spiders there are different species here; but the Bush Spider is the largest, being about two inches long: the abdomen is about one inch in length, of an oval form, and covered with black hair; the fore part of the corslet is almost square; to this part are connected five pair of legs, about two inches long, armed with two yellow claws; from the head projects two teeth, in the form of inward pointed pincers. This spider makes a strong thick web, but not much larger than itself; their young ones, it is said, they carry in a web in the form of a bag, which they deposit under their belly. The bite of this spider, though not fatal, is said to occasion a violent fever, to which fear may perhaps contribute very much.

The Spider of Surinam which is in general found in the houses, is about

an inch and a half long, of a light gray colour ; it makes no web, and only appears, when it grows dark, pursuing the insects, in particular the cock-roach ; its bite is not dangerous, and its pincers have not strength enough to penetrate the skin, which I know from experience.

The Scorpion which frequents the houses is about an inch long, and the tail as much : it is of a light gray colour : from its neck proceeds two claws, each having three articulations, and armed at the end with a pair of forceps in the shape of those of a craw fish, but more pointed ; the other four pair of legs resemble those of a spider ; the tail has different joints, and is armed at the extremity with a crooked pointed tube of a horny substance, by which the scorpion, when irritated, injects a liquid into the wound which it inflicts with its sting ; and this encreases the swelling and pain. This insect does not attack, but rather flies from you, keeping its tail coiled over the body, prepared for its own defence ; it roves by night for its prey, which consists of insects, and some of a larger size than itself, particularly the cock-roach.

The Centipede, by its quick motion, seems to have its legs in greater number than they really are, but in reality it has no more than twenty on each side ; those which breed in the houses are only about two or three inches long, while those in the forest are seven or eight inches ; the body consists of twenty articulations, corresponding with each pair of legs ; the head has the form of that of a caterpillar, but is guarded by a pair of strong sharp forceps ; and it is likely that hereby, when the centipede bites, it conveys into the wound an acrimonious fluid. It is early perceived whether a person has been wounded by a centipede or a scorpion, as in the first instance there are two small holes near together occasioned by the forceps of the centipede ; but when it is done by the scorpion, the holes are placed irregularly, and at a greater distance, and the pain more acute from the latter ; but the remedy for both is the same, which is that mentioned in the sixteenth Letter.

The Chigoe is a very small species of sand fly. This insect, which never rises from the ground, gently insinuates itself into the skin of the feet, and in particular into the toes, which occasions a moderate and not disagreeable tickling ; but when no attention is paid to this, the insect begins to form between the skin and the flesh, a bag, in which it encloses itself, leaving

only a small opening for the head, which is black, and appears not bigger in size than a common dot over an i. In the bag it deposits its eggs, which are very numerous, and resemble gnats: this bag encreases in a few days to the size of a pea, when it bursts, and the young brood begins to form other bags; so that if not timely prevented, at length they occasion severe ulcers; for which reason the black surgeons, in all well regulated plantations, inspect the negroes at the end of every week, to see whether they have taken proper care of themselves against it. The operation, when properly done, is not the least painful, and the negro females perform it with great nicety.

There is another sort of Chigoe, which by its insinuation is more painful, and occasions watery blisters, whereby the nails of the toes, without proper treatment, sometimes come off; but the evil may be prevented by a timely application of a few grains of nitrate of quicksilver.

Two other troublesome insects are of the bug kind, the Serapat, and the Pattat, which however only seem to differ in size. The serapat is in the form of an European wood bug, but much smaller. In the rainy season on walking in the high grass, a considerable number of them will settle on every part of the cloth dress of a person, from which they will penetrate to the skin, and occasion an intolerable itching; but by washing the affected places with soap and lemon juice, it is immediately allayed, and leaves not the least unpleasant sensation.

It is chiefly owing to an unguarded exposure, that the new comers suffer so much in the Tropics from the different sorts of hurtful insects; but by knowing how to prevent their attack, or by discovering efficacious remedies against their mischief, those who have been long in the colony, or those who study nature, suffer seldom from them.







